Pellet Stove

Instruction Manual

K1200- K1700- K2300

Wood Pellet Boiler Stoves

Read these instructions carefully before installing, using and servicing the unit.
Please read this manual carefully and retain it for future reference.

Table of Contents

This Pellet Burning Free Standing Fires is designed according to EN 14785:2008
WATERFORD STANLEY disclaims any responsibility for damages to the unit if installed by non-qualified personnel;
WATERFORD STANLEY is not responsible for any damage to units installed incorrectly or not used in compliance to the instructions included in this manual;
All local regulations, including but not limited to national and European standards, must be observed when installing, operating and servicing the unit;
For assistance, please contact your unit's supplier or installer. You must have the wood pellet stove serial number located on the identification plate on unit's back panel ready;
The stove can be commissioned free of charge please contact your place of purchase to arrange, the first commissioning visit is free of charge.

If you need more information about the electronics applied in the WATERFORD STANLEY pellet stoves you may find some helpful videos on the Waterford Stanley You tube channel. https://www.youtube.com/@WaterfordStanley

Contacts for technical support:
service@Waterford Stanley.com
Waterford Stanley
Unit 401-403
IDA Industrial Estate,
Cork Rd,
Waterford
Ireland.

Setting the Language for the first time.

To set the Language to English on the controller.
Press the menu button until " set" is displayed beside the menu button.
Press the " +" button 4 times , display shows "configura.....".
Press the set button twice until abbreviation for languages in the top and centre of the screen.
Press the " +" button until abbreviation "EN" is displayed.
Press the Menu button to set the language to English.

1. CONDITIONS OF WARRANTY

Your Stanley pellet stove is guaranteed against any part that fails (under normal operating conditions) as detailed in the following table with timelines specified from the date of installation of the appliance. If the stove is not installed within six months of date of purchase, the warranty will commence six months from the date of purchase.

Warranty Period	Parts Covered (Parts & Labour unless Stated)
Up to 1 Year	• Refractory materials (supply only) • Rope seals, glass seals and cement seals. • Surface Finish on Seno models. • Grates and fire bars. • Ceramic glass is covered for Thermal breakage (supply only). • Rust (if reported before installation) • Aesthetic Damage (provided reported on date of receipt) • Electrical components under normal operation.
Up to 2 Years	• All external casings & enamel finishes (excluding impact damage or damage caused by overfiring). Pictures of damage must be submitted to WS Service Department.
Up to 3 Years	• Boiler - A Leaking Boiler Report must be conducted by an Authorised Stanley Service Engineer and submitted to WS Service Department for review.

All warranty claims must be reported to the Waterford Stanley Service Department and must be submitted with the product serial number (located on the data plaque at the rear of the product), date of purchase, proof of purchase (if requested) and details of the specific nature of the problem.

The warranty is given only to the original consumer/purchaser only and is non- transferable. The appliance must be installed by a suitable qualified person and installed as per the requirements of the manual. Failure to comply with the Installation requirements or Building Regulations will void your warranty. Waterford Stanley reserve the right to replace any part due to manufacturing defect that fails within the warranty period under the terms of the warranty. The stove must be used for normal domestic purposes only and in accordance with manufacturer's operation instructions.

LIMITS OF LIABILITY

The warranty does not cover:

- Special, incidental or consequential damages, injury to persons or Property, or any other consequential loss.
- Any issue caused by negligence, misuse, abuse or circumstances beyond Waterford Stanley's control.
- Any issue with wear and tear, modification, alteration, or servicing by anyone other than an authorized service engineer.
- Installation and operational related problems such as draught related issues external to the stove, inadequate venting or ventilation, excessive flue offsets, negative air pressure caused by insufficient burning of improper fuel.
- Damage caused to the stove while in transit.
- Discolouration due to over firing, damage caused by impact, damage to baffles caused by over firing and fading of surface finish on casting.
- Stress fractures on bricks.
- Rust on cast iron parts unless reported prior to stove being installed.
- Aesthetic damage, rust & missing parts on stoves purchased off display.
- Electrical components where voltage variations are in excess of 10% of nominal 230V
-

Note: Adequate clearance must be maintained around the appliance to ensure the ease of part removal in the possible event of their damage/failure. Waterford Stanley are not responsible for any costs incurred in the removal of items installed in the vicinity of the appliance that must be moved to facilitate a part replacement.

2. Package content

Waterford Stanley ships the unit with the following components:
- Free standing pellet fire model K1200 kW, K1700 kW or K2300 kW;
- Access to the brochure of the online manual;
- Power cable.

2.1. Unpacking the unit

When unpacking the unit, please refer to the illustrations below. First remove the retractable bag containing the cardboard box. Then pull the cardboard box out (Figure 1-a) by lifting it and remove the bag containing the free-standing fire unit and the Styrofoam plates. Finally, unscrew the four parts securing the unit to the wood pallet (Figure 1-b and Figure 1-c).

a)

b)

Figure 1 - Unpacking the free-standing fire unit

3. Safety precautions ⚠

Waterford Stanley is not liable for any damages to the unit if the specified precautions, warnings and operating procedures are not followed.
Units manufactured by Waterford Stanley are easy to operate and special attention was given to their components in order to protect users and installers against accidental damages.
The units must only be installed by an authorised engineer, who should supply the client with a relevant statement of conformity and who shall be liable for the final installation and consequent product good operating conditions.
This unit must be used according to its intended use as specified by the manufacturer. The manufacturer is excluded from all liability, by contract or by tort, caused by injury to people, animals or property arising from misuse or faulty installation or servicing.
After removing the packaging, verify the contents to check their integrity and completeness. If the content of the package fails to correspond to that indicated in point 1, contact the salesperson from whom you purchased the unit.
All the unit's components guarantee its operation and energy efficiency and should only be replaced with original parts provided by an authorised technical assistance centre.
The unit must be serviced at least once a year by the installation engineer.
This manual is provided with the product. Please keep it close to the unit.

3.1. For your safety, we recommend that:

Make sure you fully read and understand this instruction manual before using the free-standing pellet fire as a biomass heating unit;

- Make sure that the hydraulic circuit was correctly assembled and connected to the water supply before turning on the free-standing pellet fire;
- The free-standing pellet fire is not intended for use by children or persons with reduced physical, sensory or mental capabilities, or lack of experience or knowledge, unless they are under supervision or have been instructed concerning the use of the unit;

- Do not touch the free-standing fire when barefoot or if any part of your body is wet or humid;
- Do not tamper with safety or adjustment features without the manufacturer's authorization;
- Do not cover or reduce the size of the vents at the installation area;
- The free-standing pellet fire requires a clear space around the unit for proper combustion, so possible air tightness of the location or any existing air extraction sources in the room may prevent the unit proper operation;
- The existence of vents is a requisite for proper combustion;
- Do not leave the packing materials near children;
- During normal operation, Free Standing Fire unit's door must not be opened;
- Some parts of the unit may overheat during normal operation, so avoid direct contact with parts such as the door handle and glass;
- Check the existence of any obstructions on the fume duct before turning on the unit after a long period of inactivity;
- This free-standing pellet fire unit is intended for residential use in protected areas. Safety systems may turn off the unit. If this occurs, contact the technical assistance. In any circumstances should you attempt to interfere with the safety systems;
- The free-standing pellet fire is a biomass heating unit equipped with an electric fume extractor. The occurrence of any power failure during its use may prevent fume extraction and the room will be filled with smoke. For this reason, you should have a natural fume extraction system, like a chimney, available;
- Waterford Stanley offers you an optional safety system which allows the Free-Standing Fire unit to be connected to a UPS so that during any power failure the fume extractor will still operate until complete extraction of all the fumes;
- If you intend to use the Free-Standing Fire unit while you are away from home or unattended, you should use the safety system specified above for total safety during any power failure;
- During operation, NEVER turn off the free-standing fire unit by disconnecting the electric plug. The fume extractor on the free-standing pellet fire unit is electric so disconnecting the power plug will prevent the extraction of combustion fumes;
- Your unit must be disconnected from the mains for servicing. Before doing this, the unit must be totally cooled down (if operating before);
- Never touch the interior of the unit without disconnecting it from the power mains;
- On back boiler models, the maximum temperature of the water that can be set by the user (water set-point temperature) is 85ºC. In the event of a temperature of 90ºC being reached, the free-standing pellet fire unit automatically disconnects and the respective alarm is activated.

4. Advice on action in the event of a fire in a chimney (includes equipment)

Try to extinguish the fire without putting your life at risk.

- If within a minute you cannot extinguish the fire, you should call the fire department.
- Close the doors and windows or partition where the fire has flared.
- Disconnect the electric current and close the gas before leaving your home.
- Once outside, you must wait for the firefighters and be ready to give you the following information: location of the fire, possible materials that are burning and what they can do to prevent the progression of fire.

5. Technical specifications

Features	K1200	K1700	K2300	Units
Weight	185	202	219	kg
Height	1110	1192	1255	mm
Width	617	W	W	mm
Depth	707	710	767	mm
Diameter of the fume discharge pipe	80	100	100	mm
Reservoir capacity	30	36	55	kg
Maximum heating capacity	295	380	502	m^3
Maximum overall thermal power (water/air)	11,5 / 1,5	14,5 / 2,2	18,8 / 3,3	kW
Minimum thermal power (water/air)	3,8 / 1,2	4,3 / 0,8	4,3 / 0,8	kW
Minimum fuel consumption	1,1	1,1	1,1	kg/h
Maximum fuel consumption	3,0	3,9	5,1	kg/h
Rated electric power	43	134	134	W
Electric power at start-up (<10 min.)	406	434	434	W
Rated voltage	230	230	230	V
Nominal frequency	50	50	50	Hz
Thermal yield at rated thermal power	92,0	90,9	89,2	%
Thermal yield at reduced thermal power	95,0	93,8	93,8	%
Combustion gas flow (max.)	21,0	6,9	6,9	g/s
Combustion gas flow (min.)	44,0	33,7	18,8	g/s
Max. gas temperature	108	126,5	153,4	ºC
Min. gas temperature	62	66	66	ºC
CO emissions at rated thermal power	0,0136	0,0162	0,0200	%
CO emissions at reduced thermal power	0,0256	0,0200	0,0200	%
Draught in the chimney	12	12	12	Pa
Unit water volume	19	22	22	L
Rated electric power	49,1	49,1	49,1	dB(A)

Table 1 - Technical specifications

Tests performed using wood pellets with a heating capacity of 4,9 kWh/kg.

The above information was obtained during product homologation tests performed at independent laboratories accredited for pellet unit tests.

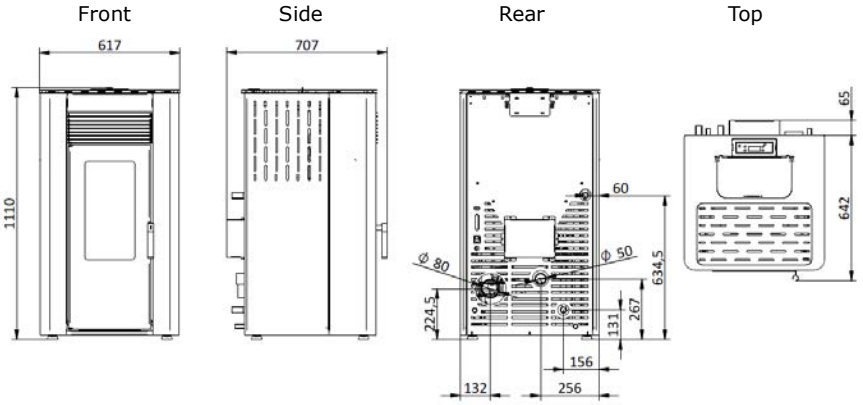


Figure 2 - Dimensions of the free-standing pellet fire unit K1200

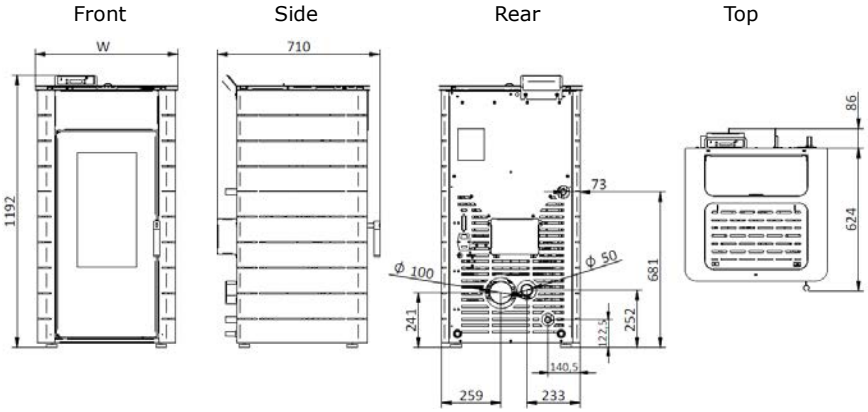


Figure 3 - Dimensions of the free-standing pellet fire unit K1700 Table 2 - Dimensions of the free-standing pellet fire unit K1700

Model	Flat	Curved
Dimension "W" (mm)	626	704

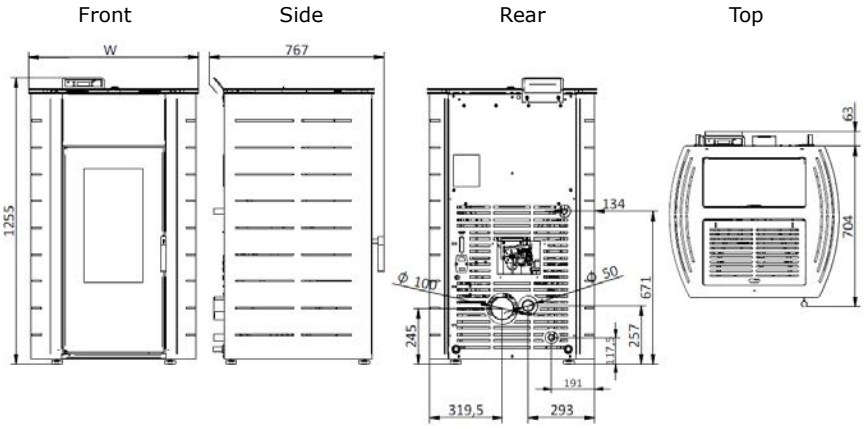


Figure 4 - Dimensions of the free-standing pellet fire unit K2300

Model	Flat	K2
Dimension "W" (mm)	644	746

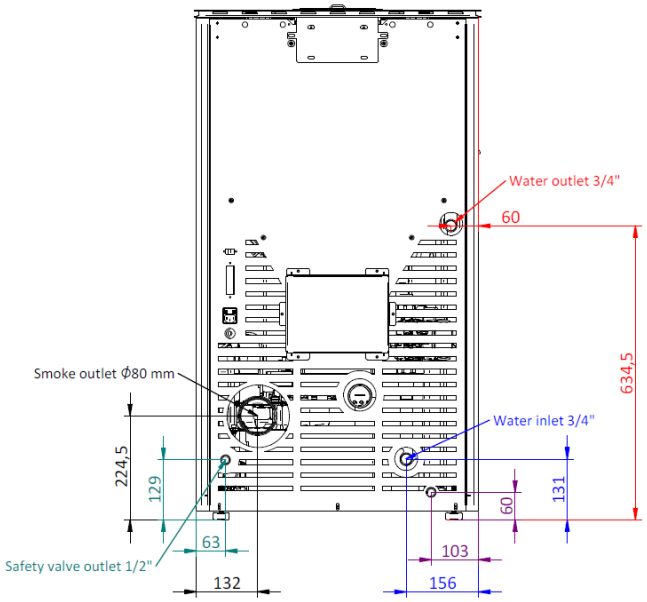


Figure 5 - Hydraulic connections of the free-standing pellet fire unit K1200

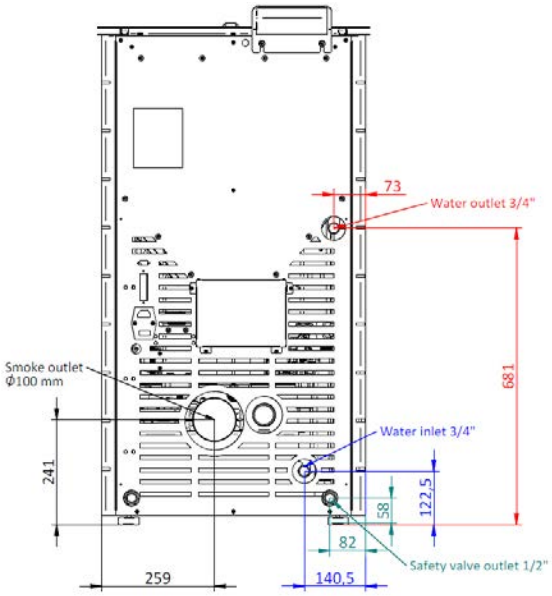


Figure 6 - Hydraulic connections of the free-standing pellet fire unit K1700 (Flat)

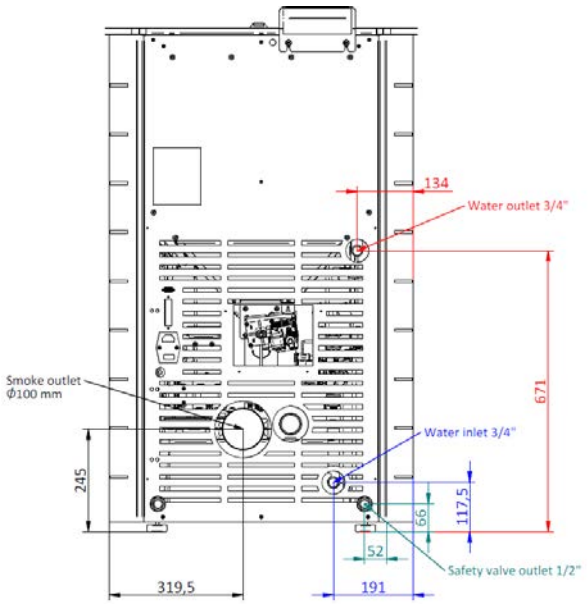


Figure 7 - Hydraulic connections of the free-standing pellet fire unit K2300 (curved)

6. Installing the free-standing *pellet* fire

Before installing, please perform the following steps:

- Upon receipt, check the product is complete and determine there is no sign of any damage. Any damages or defects should be checked before the unit is installed;
- The unit is equipped with four adjustable height feet at the base which allow for a simple regulation when installed on a non-flat surface;

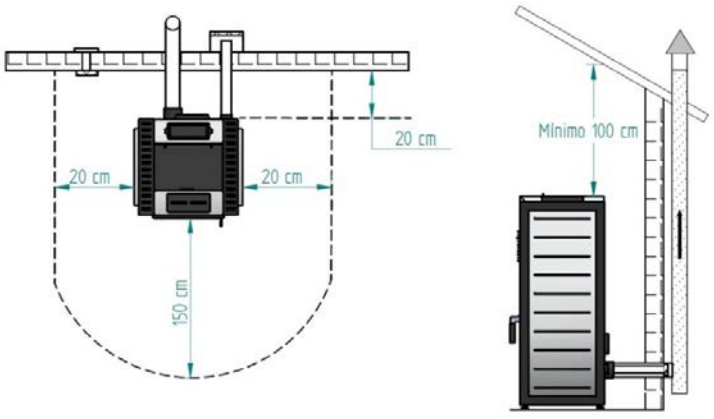
Figure 8 - Adjustable feet

- Remove the instruction manual from the package and hand it over to the client;
- Connect an 80mm wide (K1200) or 100mm wide (K1700 or K2300) duct between the combustion gas output and the outgoing fume extraction duct of the building (e.g., chimney) – check diagrams point 5;
- If a tube is used for combustion air inlet from the outside, it shall be no longer than 60cm horizontally or present offsets (such as bends);
- Perform the hydraulic installation;
- Connect the 230VAC power cable to a grounded socket;
- The surface of the unit where the hot air outlet is located must be facing the area to be heated;
- As an option, a conventional external programmer may be used (not included) to automatically setup the unit's operating periods. This should be connected through cable to the optional 230VAC programmer plug (not provided).

6.1. Installation requirements

The minimum distance between the free-standing pellet fire unit and particularly flammable surfaces is specified in Figure 9. The top of the unit must be at least 100cm separated from the ceiling, especially in rooms with ceilings consisting of flammable

materials. The base supporting the unit cannot be made of combustible material (e.g., carpet), so make sure you use an adequate protection.



a) b)

Figure 9 - Minimum distances from all surfaces: a) upper view of the unit's installation; b) side view of the unit's installation

WARNING!

Keep combustible and flammable materials at a safe distance.

6.2. Installation of ducts and fume extraction systems

• The exhaust pipe must have been designed for this purpose, in compliance to the location requirements and in accordance with any applicable regulations.

• Important! An inspection-T with an airtight lid must be attached to the exhaust pipe of the unit to allow the regular inspection of the system or discharge of heavy dust and condensates.

• As indicated in Figure 9, the exhaust pipe must be assembled so as to allow cleaning and maintenance of the pipe by inserting inspection points.

• In the K1700 model, if you want the flue to go up vertically behind the stove it is necessary to install a straight section of 25cm (Figure 10) before the cleaning "T". This ensures a minimum distance to the protection box of the auger loading motor.

Figure 10 - 25 cm stainless steel tube

• Under normal operating conditions, the combustion gas flow should create a draught of 12 Pa one meter above the chimney neck.

• The unit must not share the chimney with other equipment.

• Pipes outside the operating area must have double stainless-steel insulation and an internal diameter of 80 mm (K1200) or 100 mm (K1700 and K2300).

• The fume exhaust pipe may generate condensation, so we recommend that the appropriate systems for collecting condensates should be installed.

6.3. Installation without a chimney

The installation of the free-standing pellet fire without a chimney should be performed as illustrated in Figure 11, equipped with an exhaust pipe (with a minimum diameter of 80 mm for the **K1200** and 100 mm for the **K1700** and **K2300** model) directly outside and terminate over the the roof level by at least 600mm. The termination should be in accordance with building regs to avoid any high pressure zones.

Double-walled stainless steel insulated pipes must be used and properly fastened to avoid condensation.

A T-tube must be installed at the base of the pipe to allow periodic inspections and annual maintenance, as illustrated in Figure 11.

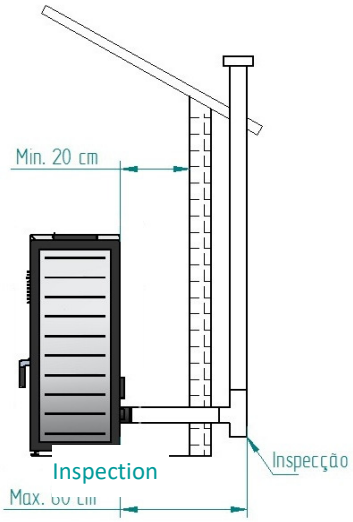
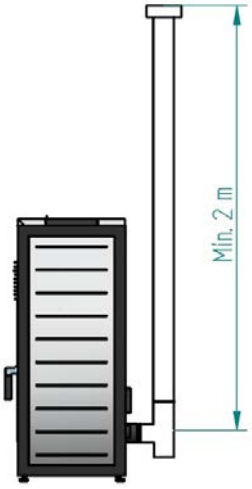


Figure 11 - Side view of the installation without a chimney, illustrating the inspection point

Error! Reference source not found. specifies the basic requirements for installing the chimney to the unit.



a)

⚠ Failure to comply with these requirements may prevent the correct operation of the unit. Follow all the instructions presented on the diagrams.

⚠ The Hidro units operate with the combustion chamber in vacuum, so it is absolutely necessary to have a fume exhaust pipe to extract combustion gases properly.

Fume duct material: The tubing must consist of 0,5 mm thick rigid stainless steel, with fastening joints attaching the different sections and accessories.

Insulation: The fume ducts must be double-walled and insulated to make sure that fumes do not cool down going outwards, which would cause an inadequate circulation and condensation that may damage the unit.

Where the flue draught is excessive it may be necessary to insert a "T-tube" with a regulator to regulate the flue draught.

Windproof terminal: A windproof terminal must always be installed to avoid the backflow of fumes.

Draught in the chimney: The figures below show three standard diagrams, specifying adequate lengths and diameters. Any other type of installation must guarantee a draught of 12 Pa (0,12 mbars) measured when hot and at the maximum power.

Ventilation: To get the optimum operation of the unit it **is necessary that the installation location has an air inlet with a minimum section of 100 cm², preferably near the back panel of the unit.** The free-standing pellet fire unit has a circular pipe (∅ 50mm) that may be connected to the exterior of the house.

If the residence has an air exhaust system installed (e.g., kitchen extractor fan), then ventilation of a required cross sectional area to accommodate the different air exhaust units/systems must be installed.
The installation of the unit on locations near kitchen exhaust fans or fume extractors may prevent the unit from operating properly.

6.4. Installation with a chimney

As shown in Figure 12, where the unit is installed with an exhaust pipe (∅80 mm for the **K1200**; ∅100 mm for the **K1700** and **K2300**) through the existing chimney, the chimney will be too large and must be lined with a flexible flue liner of appropriate diameter, for 80 mm exhaust outlet increase to 100mm flexible flue, for 100mm exhaust outlet increase to125mm flexible flue.
A T-tube must be attached to the base of the pipe to allow for periodic inspection and annual maintenance, as illustrated in Figure 12.

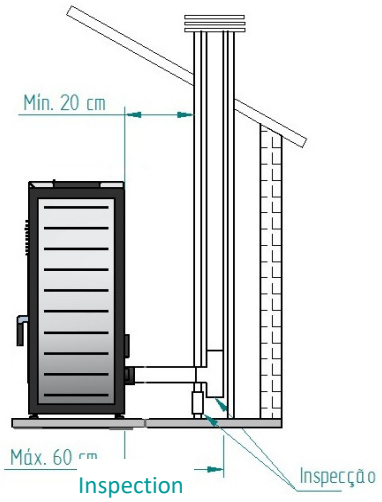


Figure 12 - Side view of the installation with a chimney, showing the inspection point

We do not recommend that you use the unit in rough weather conditions that may seriously impact the draught (particularly with very strong winds).

If you do not use the unit for a long time, check it to make sure that the flue pipes are clear before lighting the fire.

7. Hydraulic Installation

- The chapter 19 (installation diagrams) contains the optional connection diagrams for central heating installations, with or without water heating for household use;

- The free-standing pellet fire unit is equipped with a circulating pump, an expansion vessel (6 litre volume (in the K1200 and 17 model) or 10 litre volume (in the K2300 model) and pre-charge of 1 bar) and a 3-bar safety valve;

- Operating pressure is between 0,8 and 1,2 bar (for K1200) and 1 and 1,5 bar (for K1700 and K2300);

- To empty the unit, attach a "T-tube" with a tap to the outlet (connected to the drain); the safety valve (3 bar) outlet must also be connected to the drain;

- The heating fluid must consist of water with an anti-rust, non-toxic product added in the quantity recommended by the manufacturer. If the unit installation or the fluid pipes are installed are likely to freeze, the installation engineer must add to the circulating fluid the amount of antifreeze product recommended by the manufacturer, to avoid freezing at the estimated minimum temperature.

7.1. Operating mode for radiator/buffer tank

⚠ IMPORTANT! The boiler is programmed to work directly for radiators, in case you want to install the boiler with a buffer or AQS tank, we recommend changing the temperature "OFF" of the circulation pump by placing the same temperature as the deposit or 1 °C higher than this temperature, should disable the "hYDRO Menu" modes "Modulating Pump" and "hydro independent" and switch the mode display "Auto" to "Manual" mode and select the power 5 (Fire 5).
You must change the smoke temperatures ("Toff" and "Ton") in the "Activation" menu. For these changes is necessary to access the "Installer Menu" on the display, please request a password manufacture.

8. Fuel

The Free-Standing Pellet Fire operates exclusively with pellets. No other fuel sources are allowed to be used.
Only use *pellets* certified by standard EN 14961-2 grade A1 with a **diameter of 6mm** and a length of **10-30mm**.
The pellets may have a maximum humidity of 8% their weight. To guarantee a good combustion, the pellets must maintain these characteristics so it is recommended that they should be stored in a dry place.
The use of different pellets will reduce the efficiency of the unit and cause deficient combustion.

Only certified pellets should be used and a sample must be tested before buying large bulks.

The physicochemical properties of the pellets (namely, calibre, friction, density and chemical composition) may vary within specific tolerances and across manufacturers. Please note that this may cause changes to the feeding process and, consequently, the need for different doses (more or less pellet quantity).
The unit allows for an adjustment of +15%/-33% the pellet dosage at the start-up phase and at each power level (please see section 9.2.7 of this manual).

⚠ **WARNING!**
This unit may NOT be used as an incinerator.

9. Using the Free-Standing Pellet Fire

⚠ The pellet stoves must be serviced as described in point 3.6, page 110 (Warranty). In order to adjust the operating parameters of the stove (pellet stove), the dosing must be adjusted as described in section 7 of this manual. The pellet dose must be adjusted according to the gas temperature and pellet consumption of the appliance at the rated power described in Table 1, page 5, in order to ensure that the appliance delivers the correct power.

Recommendations

Before starting up the unit, please check the following:

- Ensure the unit is properly connected to the power mains using the 230V AC power cable.

Figure 13 - Electric power plug

Check if the pellet reservoir is supplied with pellets. Inside the pellet reservoir is a safety grid to prevent users from reaching the worm screw.

- Ensure that before each ignition the burner is clear.

⚠ **The unit's combustion chamber and panel door are made of iron plate painted with high temperature resistant paint which releases fumes during the initial burn due to the paint's curing process. Avoid touching the unit during its first burn to prevent leaving permanent marks on the paint. The paint goes through a more plastic phase during the curing process. The curing of the paint occurs at approximately 300ºC for 30 minutes.**

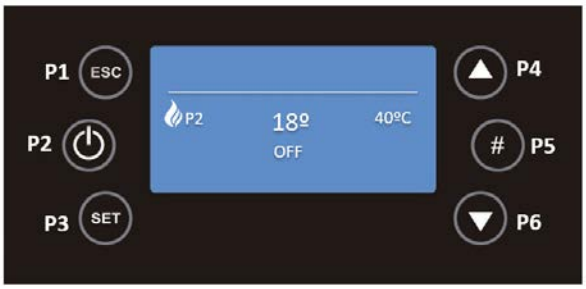
Please make sure the room where the unit is installed has adequate air circulation; otherwise, the unit will not work properly. For this reason, it is important to check if there are any other air-consuming heating appliances present in the room (e.g., gas units, braziers, extractors, etc.); these should not be used simultaneously with the unit.

This Free-Standing Pellet Fire unit has a probe for measuring the room temperature. This probe is attached to the grid at the rear panel (Figure 14). For a good reading of the room temperature, avoid the contact between the end of the probe and the unit surfaces. You may also attach the probe to the wall beside the unit.

Figure 14 - Room temperature probe

10. Control Tiemme

Waterford Stanley stoves may be equipped with Tiemme electronics, the Tiemme display is as shown below. To confirm if your equipment is equipped with these electronics, please check the serial number of the equipment and refer to Table 3.



Tiemme Electronic	Serial No. of equipment
K1200	⩾ 01-21-00193
K1700	⩾ 01-21-00243
K2300	⩾ 01-21-00291

Table 3 - Serial No. with Tiemme electronic

10.1. Display

When connecting the equipment, the display indicates the "OFF" status of the stove, and can also indicate the chrono activation, system errors, selected combustion power, selected ventilation power, current room temperature and selected room temperature set-point.

In the Home Page by pressing the key:

- "P1" it's possible to exit the menu/submenu;
- "P2" it's possible to switch on the equipment, or, switch off the equipment. The same button allows the errors reset, by pressing 3 seconds continuously, it also allows the activation of Chrono in the corresponding submenu;
- "P3" it's possible to access the user menu 1, by pressing 3 seconds on the same button we can access the user menu 2 and it also allows saving changes;
- "P4" it's possible to enter the Combustion Power menu;
- "P5" it's possible to enter the Information menu and also activate a Chrono time slot;
- "P6" it is possible to enter the Room Thermostat menu;
- "P3" + "P5" for 3 seconds it is possible to access the secondary information menu present in the service menu where it is possible to check a set of variables.

Led	Meaning
D W WE	• When this Led is active it means that the Chrono is in Daily Mode ON, Weekly Mode ON or Weekend Mode ON.
	• When this LED is active, it means that the required room temperature has been reached.
	• Summer
	• Winter

THE STOVE MUST ALWAYS BE DEACTIVATED IN THE SAME WAY IT WAS ACTIVATED. THE EQUIPMENT MUST NEVER BE UNPLUGGED DURING THE ACTIVATION PROCESS.

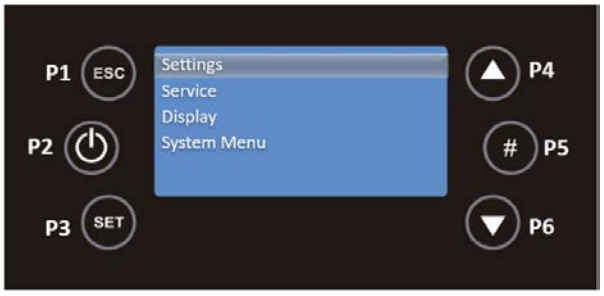
10.2. Settings Menu

10.2.1. Language

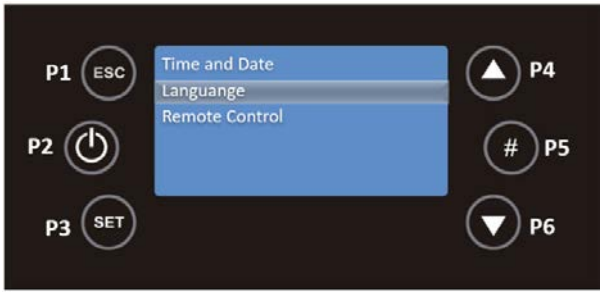
By pressing the P3 key for 3 seconds, you will display the Settings, Service, Display and System menus.

SYSTEM MENU IS AN EXCLUSIVE ACCESS MENU FOR THE TECHNICAL SERVICE AND REQUIRES A PASSWORD.

With the P4 and P6 keys you must select the required menu and then press P3 to validate your choice, in this case the Settings menu.



Select the Language submenu with the P6 key and to validate the entry in this submenu the P3 key.



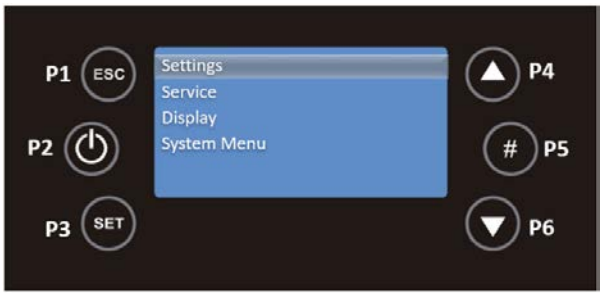
Within this submenu, with P4 and P6 select the required language and press P3 again to confirm.

To exit the Language menu, press the P1 key.

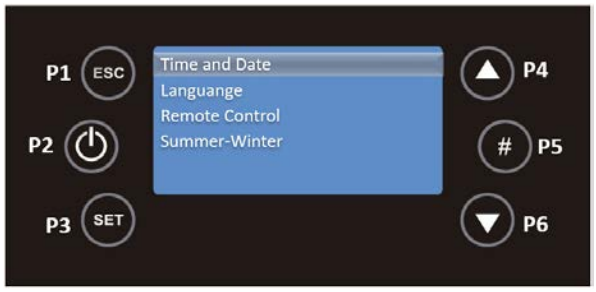
10.2.2. Time and Date

- **Time**

From the main screen, by pressing for 3 seconds the P3 key, you can access the Settings menu, by pressing again on P3 to enter this menu.



Use the P3 key to select Date and Time.



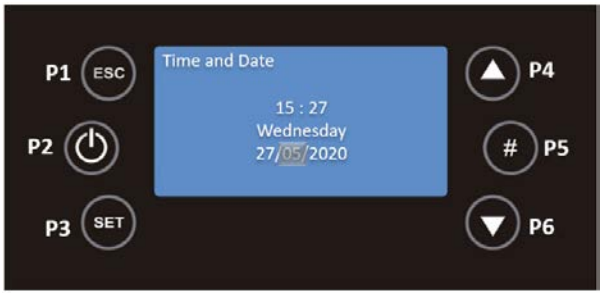
In the Date and Time menu, select Time, with the P4 and P6 keys, and press the P3 key, the time will appear in editable mode, flashing, with P4 and P6 select the correct time and press P3 to validate.

The same must be done for Minutes, with P6 select Minutes and press P3, the minutes will appear in editable mode, flashing, with P4 and P6 select the correct minutes and press P3 to validate.

- **Date**

In the same menu, select Day with the P4 and P6 keys and press P3, the day will appear in editable mode, flashing, with P4 and P6 select the correct day and press P3 to validate.

To edit the Month, you must use the P4 and P6 keys to select this information and then P3, the month will appear in editable mode, with P4 and P6 select the desired month and then press P3 again to validate.

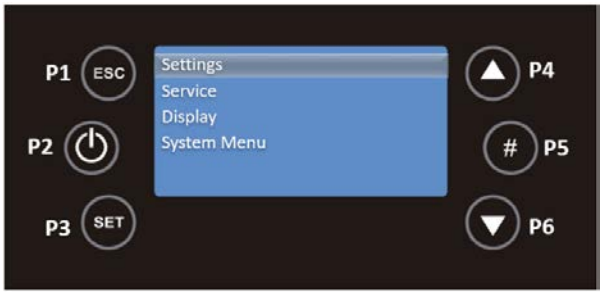


The Year follows the same procedure, press the P4 and P6 keys to move to the Year, use the P3 key to edit this field, the year will appear in editable mode. With P4 and P6 select the desired year and press P3 to validate.

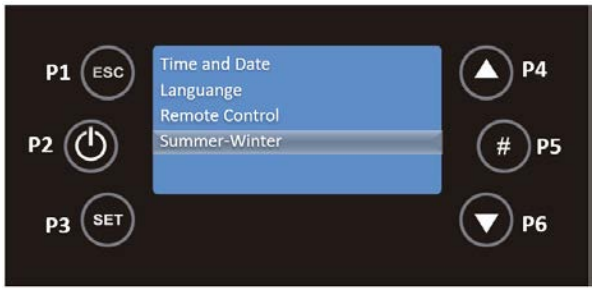
THE DAY OF THE WEEK (SUNDAY TO SATURDAY) CHANGES ACCORDING TO THE DAY OF THE WEEK SELECTED.

10.2.3. Summer-Winter (not applicable)

From the main screen, by pressing for 3 seconds the P3 key, you can access the Settings menu, by pressing again on P3 to enter this menu.



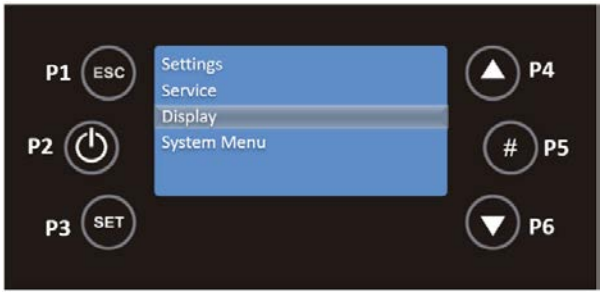
Use the P6 key to select the Summer-Winter submenu and confirm the entry in this submenu with the P3 key.



By pressing the P4 and P6 buttons, you can choose between summer or winter mode, this menu allows you to modify the functioning of the control unit according to the season. Use the P3 key to validate the choice.

10.3. Display Menu

By pressing the P3 key for 3 seconds, you will see the Settings, Service, Display and System menus. Use the P4 and P6 keys to select the required menu and then press P3 to confirm the choice, in this case the Display menu.



In this menu there are the functions Contrast, Min Brightness, Screen Saver and Firmware Codes.

10.3.1. Contrast

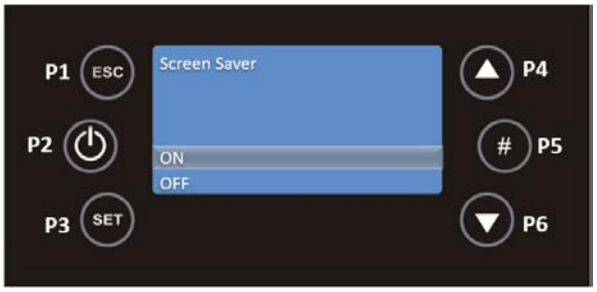
Press the P3 key to validate the choice of this function, with the P4 and P6 keys you can set the contrast between 0 and 30 for your screen. To return to the Display menu, press P1.

10.3.2. Min Brightness

In the Display menu with P4 and P6 select the Min Brightness function by pressing on the P3 key. With the P4 and P6 keys you can set the brightness between 0 and 20 for your display. To return to the Display menu, press P1.

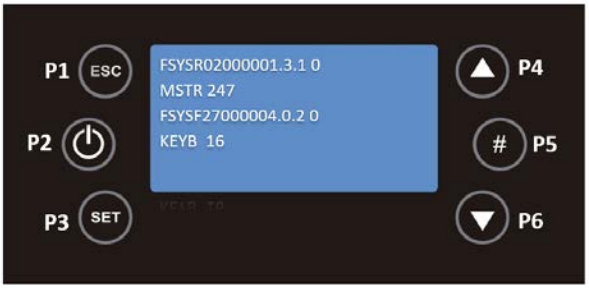
10.3.3. Screen Saver

In the Display menu with P4 and P6 select the Screen Saver function by pressing on the P3 key. In this function you can activate or deactivate the screen lock. To return to the Display menu, press P1.



10.3.4. Firmware Codes

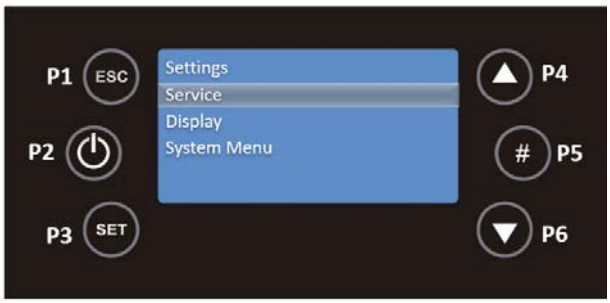
In the Display menu with P4 and P6 select the Firmware codes function by pressing on the P3 key. This function, for reference only, allows you to see the communication address of the control board, type of control board and firmware version.



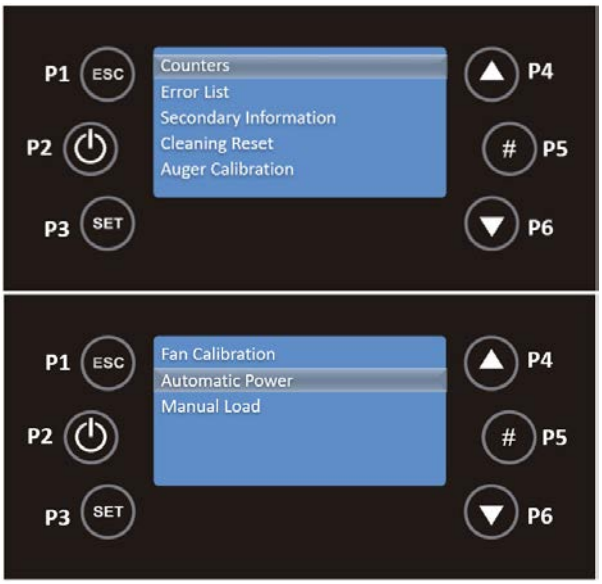
To return to the Display menu, press P1. Pressing this key twice will display the Settings, Display, Service and System menus.

10.4. Service Menu

By pressing the P3 key for 3 seconds, you will display the Settings, Service, Display and System menus. Use the P4 and P6 keys to select the required menu and then press P3 to confirm the choice, in this case the Service menu.

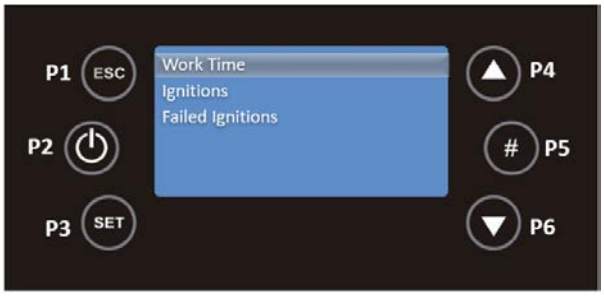


The following functions are available in this menu.

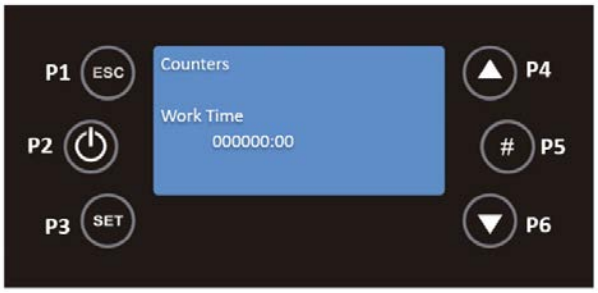


10.4.1. Counters

Select Counters, using the P3 key, to validate the entry in this submenu. This function allows consulting the working hours, the number of ignitions and the number of failed ignitions.

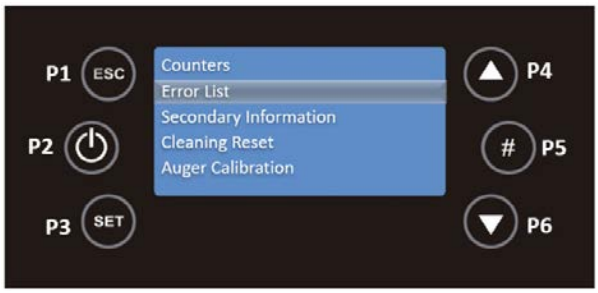


Using the P4 and P6 keys, select the submenu you wish to consult and press P3 to validate. To return to the Service menu, press P1.

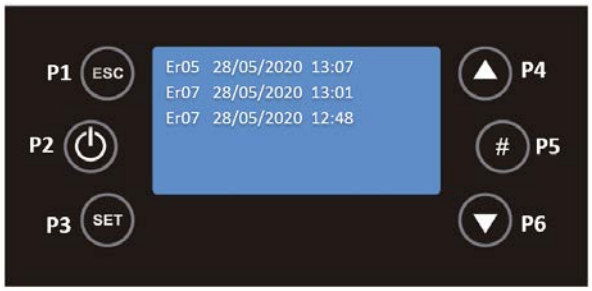


10.4.2. Error List

In the Service menu with P4 and P6 select the submenu Error list, pressing the P3 key to validate.

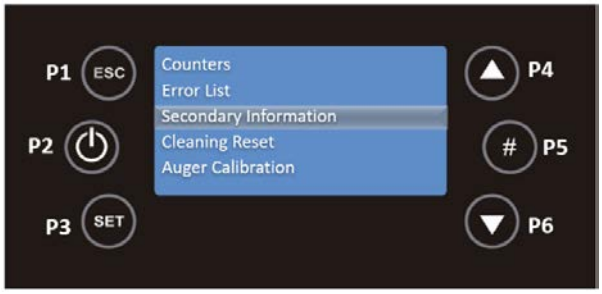


This submenu shows the last 10 errors that occurred, on each line the error code and the date and time when it occurred are displayed. To return to the Service menu press P1.



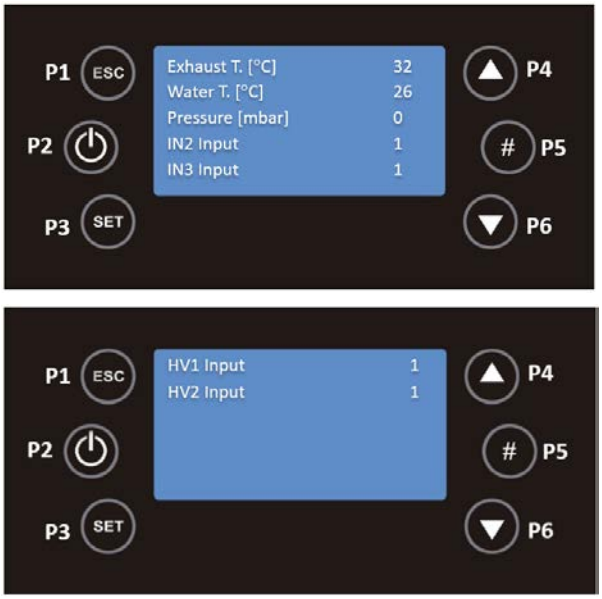
10.4.3. Secondary Information

In the Service menu, select the Secondary Information submenu with P4 and P6 and then press the P3 key.



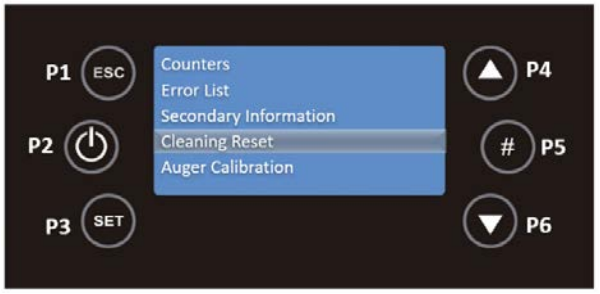
In this function you can check the product code, the status of the fan, the auger, the heating fan and the status of the outputs.

It is possible to query the exhaust temperature, ambient temperature and the status of the inputs. Whether the input status is open (0) or closed (1).



10.4.4. Cleaning Reset

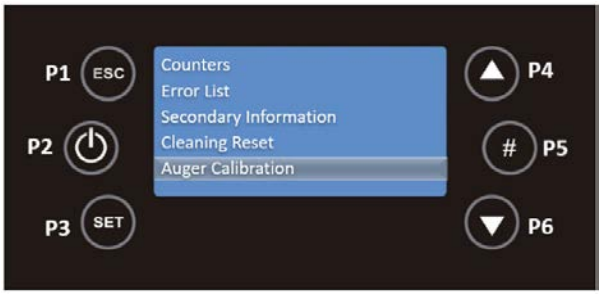
In the Service menu with P4 and P6 select the Cleaning Reset function by pressing on the P3 key.



In this function you can switch this function on or off. To return to the Service menu, press P1.

10.4.5. Auger Calibration

In the Service menu with P4 and P6 select the Auger Calibration submenu, pressing the P3 key to validate.

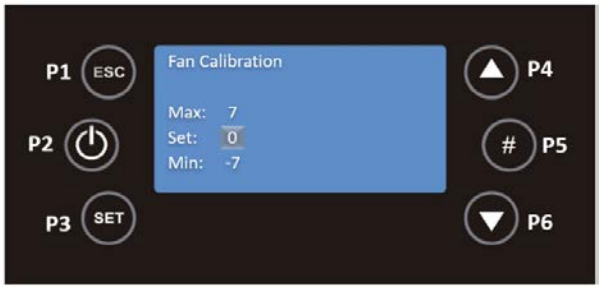


In this submenu, using the P4 and P6 buttons, you can adjust the quantity of pellets to be fed, between -7 (-14%) and 7 (+14%). To return to the Service menu, press P1.

10.4.6. Fan Calibration

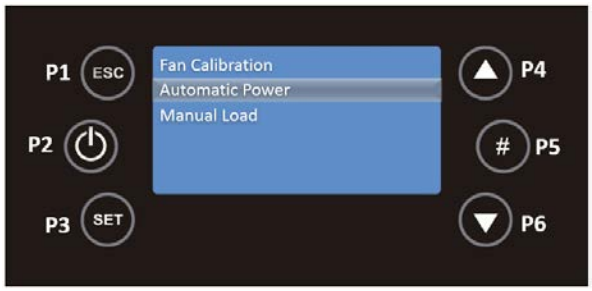
In the Service menu with P4 and P6 select the submenu Fan Calibration by pressing on the P3 key.

In this submenu with the keys P4 and P6 you can adjust the fan speed, between -7 (-21%) and 7 (+21%). To return to the Service menu, press P1.

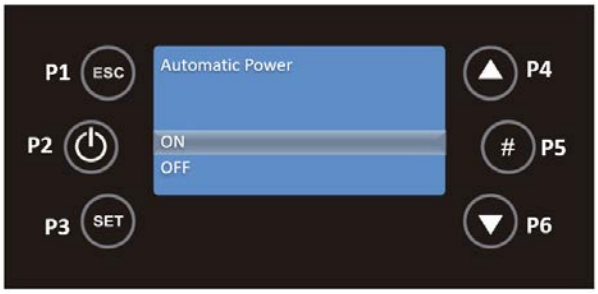


10.4.7. Automatic Power

In the Service menu with P4 and P6 select the Automatic Power submenu by pressing the P3 key.

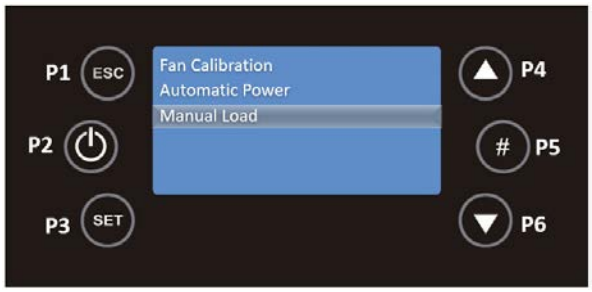


In this submenu you can set the combustion power only in automatic mode. If you set it, all the menus for changing the power will not be visible. With P4 and P6 you must select On or OFF and validate the choice with the P3 key.

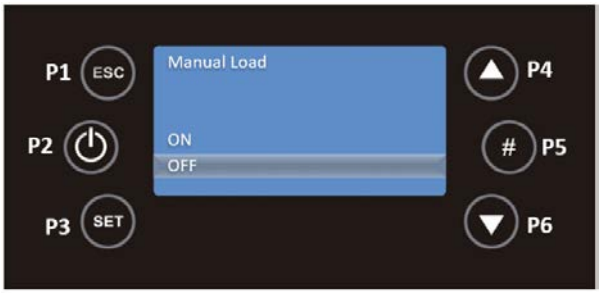


10.4.8. Manual Load

Select Manual Load, with the P3 key, to validate the entry in this submenu.



This function activates the pellet manual loading.



Pressing the P1 key twice will take you back to the main menus, Settings, Display, Service and System Menu.

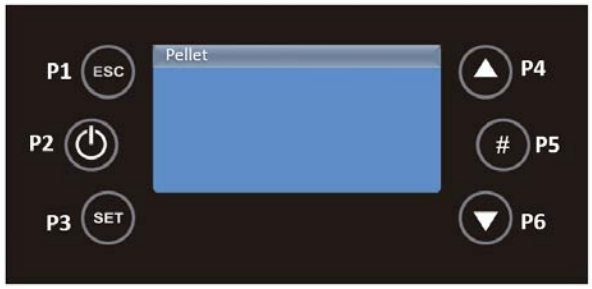
SYSTEM MENU IS AN EXCLUSIVE ACCESS MENU FOR THE TECHNICAL SERVICE AND REQUIRES A PASSWORD.

10.5. Power Menu

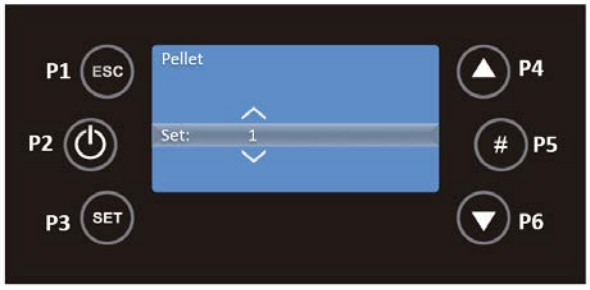
Press the P3 key to access the following menus, Power, Thermostats and Chrono. Use the P4 and P6 keys to select the required menu and then press P3 to confirm the choice, in this case the Power menu.

10.5.1. Pellet

Select Pellet with the P3 key, to validate the entry in this submenu.



With the P4 and P6 keys you can modify the combustion power of the system.

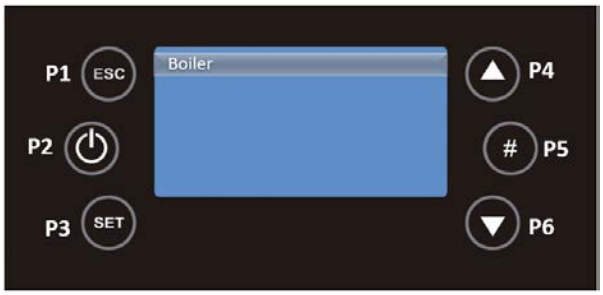


Press the P3 key to save your changes and use P1 to go back.

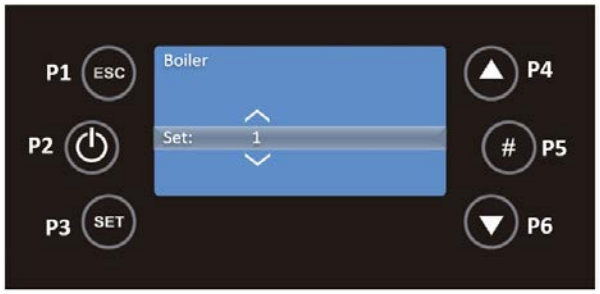
10.6. Thermostats Menu

Press key P3 to access the Thermostats menu, using key P6 and then press on P3 to validate the choice of this menu.

In this menu select the Boiler submenu using the P3 key.



This submenu allows the boiler thermostat value to be modified, using the P4 and P6 keys. The minimum and maximum values can be set.



Press the P3 key to save your changes and use P1 to go back.

10.7. Chrono Menu

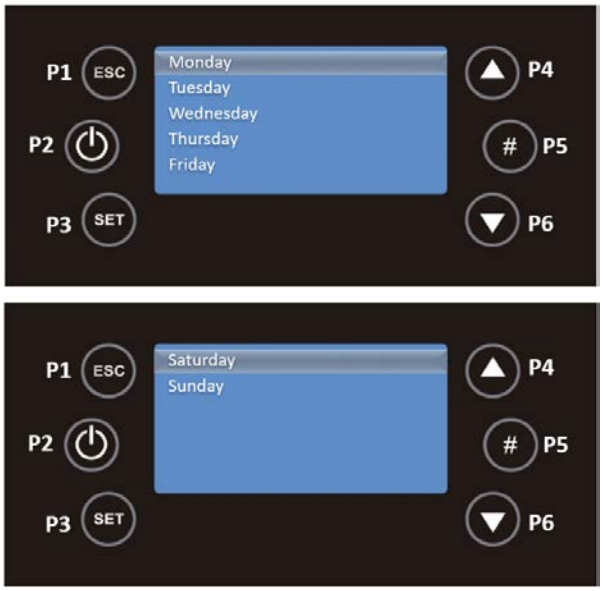
The unit has a time scheduler that allows the stove to switch on and off automatically. It can be daily (you can select the day of the week you want and set up to 3 different times for the respective day), weekly (you can select up to 3 times during a day, the same program will be applied every day of the week) and weekend (you can select 3 times during the day for weekdays and weekends).

In the main screen, press the P3 key to access the menus, Power, Thermostats and Chrono. Use the P4 and P6 keys to select the Chrono menu and then press P3 to confirm the choice.

You must then enter the Programme submenu, using the P6 key to select and P3 to validate the choice.

Then use the P4 and P6 keys to select Daily, Weekly or Weekend. You must press P3 to validate your choice.

For the Daily programme, you must use the P4 and P6 keys to select the day of the week, in this case the programme for Monday, and then press P3 to validate your choice.



You must press P3 and this option will be in editable mode, flashing. Press P4 and P6 to select the desired time and then use the P3 key to save. Repeat this process for the time at which the unit is to shut down, using P4 and P6. Finally, activate the interval by pressing P5, and a check mark will appear to the right of the interval.

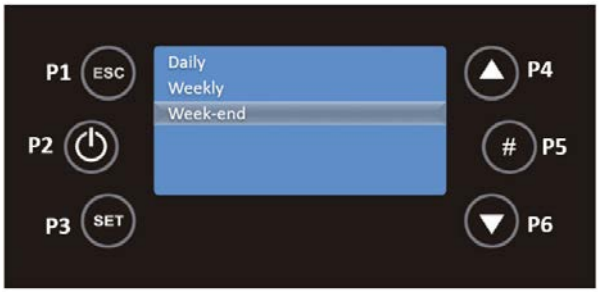
In the image above the system will turn on at 20:30 on Monday and will turn off at 06:30 on Tuesday. When programs are developed around midnight with the intention of starting operation the day before and finishing operation the next day it will be relevant:

- Set the OFF time of the day before at 23:59;
- Set the ON time for the next day at 00:00.

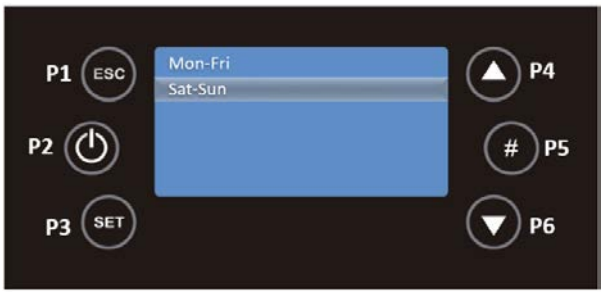
For the Weekly programme, the programmes are the same for every day of the week, from Monday to Sunday. Use the P4 and P6 buttons to select weekly from the Programme submenu and press P3 to confirm the choice.

You must press P3 and this option will be in editable mode, flashing. Press P4 and P6 to select the desired time and then use the P3 key to save. Repeat this process for the time at which the unit is to shut down, using P4 and P6. Finally, activate the interval by pressing P5, and a check mark will appear to the right of the interval.

For the Weekend programme, you must, with the P4 and P6 keys, select Weekend and press P3 to validate your choice.



For this mode, you must choose between the Monday to Friday and Saturday to Sunday time slots by pressing the P3 key.



You must press P3 and this option will be in editable mode, flashing. Press P4 and P6 to select the desired time and then use the P3 key to save. Repeat this process for the time at which the unit is to shut down, using P4 and P6. Finally, activate the interval by pressing P5, and a check mark will appear to the right of the interval.

AFTER DEFINING THE PROGRAMMES, IT IS NECESSARY TO DEFINE WHICH MODE YOU WANT TO ACTIVATE.

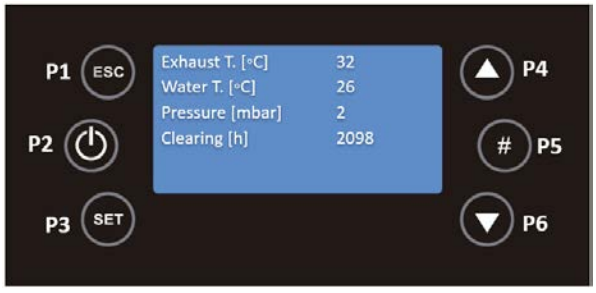
In the main screen, press the P3 key to access the menus, Power, Thermostats and Chrono. Use the P4 and P6 keys to select the Chrono menu and then press P3 to confirm the choice.

By selecting Mode with the P3 key you can select which Chrono mode you want. Use the P4 and P6 keys to select between Daily, Weekly and Weekend, use the P2 key to activate/deactivate the choice and P3 to save the changes.

After activating the mode, the main screen will have Led **D**, **W** or **WE** active in the upper right corner.

10.8. Info Menu

In this menu the user can view some information about the device, such as measured values and aspects relating to the electronics. In the initial menu, press the P5 key once, and the menu will appear.



With the P4 and P6 keys you can scroll through the different variables. The values displayed are the values measured On-Line.

The following table explains the meaning of each of the variables.

Exhaust T. [°C]	Read in degrees Celsius (°C) it tells you the exhaust temperature monitored by the probe.
Water T. [°C]	This is read in degrees Celsius (°C) and gives the water temperature.
Fan [rpm]	Read in rpm, it tells you the rotation speed of the fan.
Auger [s]	Read in seconds and within 4 seconds the auger is active and feeding pellet to the burner.
Service [h]	Read in hour's shows the number of hours remaining to show faults due to lack of maintenance. These must be reset by the technical service during maintenance. The maintenance period must respect the kilos of pellets burned.
Working hours [h]	Read in hours tells you the number of hours in Run Mode, Modulation and Safety Mode.
Ignition [nr]	Read in number of occurrences informs how many ignitions have been carried out since they were reset to zero.
Cod. Artic.	Product Code.

Table 4 - Meaning of the variables

11. Alarm / Failure / Recommendation List – Tiemme Control

Anomalies

- Sond – Probe's anomaly during the control in Check Up.
- Ignition Block – The message appears if the system has been is turned off during Ignition (after Preload) by an external device: the system will stop only when it goes in Run Mode.
- Link Error – Lack of communication between the LCD or K control panels and the control board.
- Cleaning On – Periodic cleaning in progress.
- Flashing Hours - Wrong time and date in the event of prolonged power failure.

THE ANOMALIES DO NOT ORIGINATE THE SHUTDOWN OF THE EQUIPMENT.

To switch off the device, in case of emergency, you must do the normal shutdown of the equipment. To do this, press the off button for 3 seconds and allow it to deactivate until the word off appears on the display.

All alarms cause the machine to switch off with information about the error and activation of the alarm led. It will be necessary to reset the alarm and restart. To reset the machine, press the "On/Off" button for 3 to 4 seconds until you hear a beep accompanied by the message "Reset alarms in progress".

If the resetting of alarms is successful, new information is displayed - Reset alarms Successful. In the Off state, if for any reason the smoke temperature rises above 85ºC, the unit enters deactivation mode.

Alarm	Code		Troubleshooting
Pellet drum temperature is too high	Er01	110 °C, even with the equipment OFF	- Thermostat defective - call for service - Check operation of the pump - Bleed the hydraulic circuit
Pressure regulator alarm	Er02	Door open, draught too low or extractor fault for 180 sec. Only visible if puller is set to ON.	- Close door and remove faulty pressure switch - Faulty exhaust pipe obstruction or extractor
Extinguishing for exhaust under temperature	Er03	Temperature below 55ºC (Th03)	- Pellet reservoir is empty - Faulty thermocouple - Air to fuel Ratio incorrect.
Extinguishing for exhaust over temperature	Er05	Over 300 °C	- Insufficient extraction - Excess pellets - Faulty smoke sensor - (if problem persists call for service)
Encoder fan error: no Encoder signal	Er07	No rpm signals. Allows unlocking and working by voltage in a provisional way P25=0	- Check connection - Check that the fan is not blocked - After remedying the fault, you must select operating mode P25=2 again
Encoder fan error: Combustion Fan regulation failed	Er08	Encoder has signal but failed regulation. Can be released and working temporarily by voltage P25=0	- Blockage of exhaust pipe or defective extractor - After remedying the fault, you must select operating mode P25=2 again
Low water pressure	Er09	Low water pressure <500mbar	- Check and adjust the pressure in the hydraulic circuit - If the problem persist contact a service technician.
High water pressure	Er10	High water pressure > 2900mbar	- Check and adjust the pressure in the hydraulic circuit - If the problem persist contact a service technician.
High water pressure	Er11	Clock error, the error occurs due to problems with internal clock.	Restart the stove, full electrical reset, If the problem persists contact a service technician
Failed ignition	Er12	Maximum time: 900 s and exhaust temperature below 50°C	- Empty auger channel - restarting - Ignition resistance burnt out - replace resistance - Firing basket incorrectly placed - Exhaust temperature did not exceed the value set on activation
Lack of voltage supply	Er15	Lack of voltage supply for more than 50 min	- In case of power failure (<10s) the stove continues to function normally. - If the system is ON and the power failure occur for more than 10s and less than 5 min, the stove restarts after going through standby.
Communication error RS485	Er16		- Check connection between board and display
Open door error (First Advance 12kW only)	Er44	Door opens for 60 sec	- Close the door - remove the error - Air mass sensor damage

THE MAINTENANCE FAULT ("SERVICE" MESSAGE ON THE DISPLAY) MEANS THAT THE STOVE HAS MORE THAN 2100 HOURS IN SERVICE. THE CUSTOMER MUST HAVE THE EQUIPMENT SERVICED AND ONLY THEN RESET THE HOUR METER TO ELIMINATE THE FAULT MESSAGE. THIS DOES NOT INFLUENCE THE NORMAL OPERATION OF THE EQUIPMENT; IT IS ONLY A WARNING.

⚠ **WARNING!**
TO SWITCH OFF THE APPLIANCE IN AN EMERGENCY, YOU SHOULD NORMALLY SHUT DOWN THE EQUIPMENT.

⚠ **WARNING!**
THE APPLIANCE WILL BE HOT DURING OPERATION, SO THAT CARE SHOULD BE TAKEN ESPECIALLY WITH THE DOOR GLASS AND THE DOOR HANDLE.

12. Operating the unit

To start operating the Free-Standing Pellet Fire unit, press the start/stop button for 3s. The display should indicate "Lighting" until this completion of this phase.
The *pellets* are fed through the supply channel to the burning basket (combustion chamber), where they will be ignited using a heat resistor. This process may take between 5 and 10 minutes, depending on whether the worm screw used to push through the *pellets* has been previously filled with fuel or is empty. Upon completion of the ignition phase, the word "On" should appear on the *display*. The heating power can be adjusted at any time by pressing the power selection button for approximately 1 second. You can choose between five pre-set power levels. The selected power is indicated on the display. The initial power status at each start-up will correspond to the power level set during the last cycle operation.

⚠ **Important Note**: Before starting up the unit, check to determine if the deflector plate is **CORRECTLY** positioned.

12.1. Stop

The stop sequence of the unit is started by pressing the start/stop key for 3s. The display will show "**Desactivação**" (Disabling) until full completion of this phase. The extractor will remain active until the fume temperature of 40ºC is reached, to guarantee that all the material has been burnt.

12.2. Turning off the unit

The unit should only be disconnected after its full stop. Make sure that the display shows "**Off**" before disconnecting the unit. If necessary, disconnect the power cable from the mains.

13. Instruction for installing the casings

Before installing the casings, you should check immediately whether the packing is complete and in perfect condition, possible damages or lack of element must be reported and marked before proceeding with its installation.
This manual will demonstrate how to install the casings in the K1200, 17 and 23 equipment's.

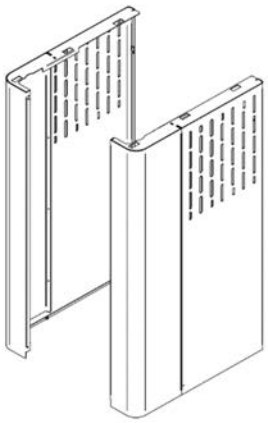
IMPORTANT NOTICE: Before installing the casings, the machine must be switched off (remove the mains plug).

13.1. Installation of the casings K1200

Two configurations of casings can be installed on the K1200 unit,Oak and Flat. In order to assemble the casings, the installer must have a star screwdriver (PH2 screw) available.

To assemble these models, it is necessary that each of the kits contain the following parts:

- **Oak**

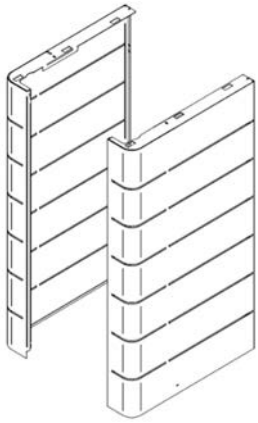


Set of casings

2 Screws Din 7981 4,2x9,5 (CO0704132501019)

Figure 15 - Kit Oak

- **Flat**

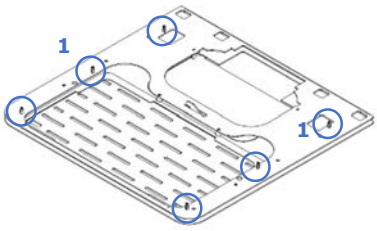


Set of casings – chosen colour

2 Screws Din 7981 4,2x9,5 (CO0704132501019)

Figure 16 - Kit Flat

a) First remove the upper part of the equipment, undoing the pins (1) of the springs (2) existing in the structure by exerting force in the upwards direction.



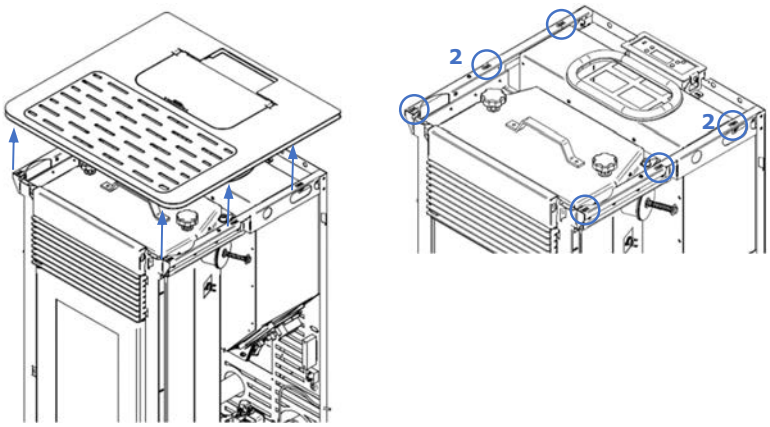


Figure 17 - Removing the top K1200

b) Next, you must fit the tabs of the casings into the slots in the pillars and in the rear grille of the equipment.

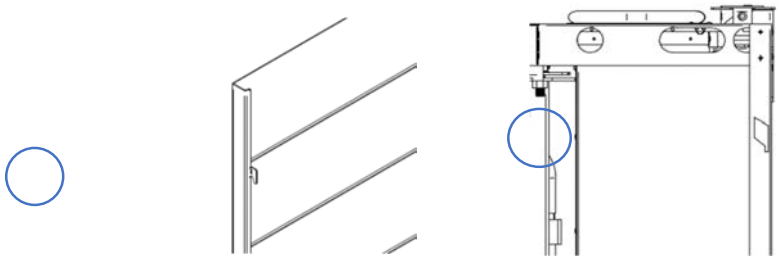


Figure 18 - Assembly of the casings K1200

The front tabs of the casings (3) must be fitted into the slots at the front of the unit (4). The rear tabs (5) fit into the slots on the sides of the unit (6).

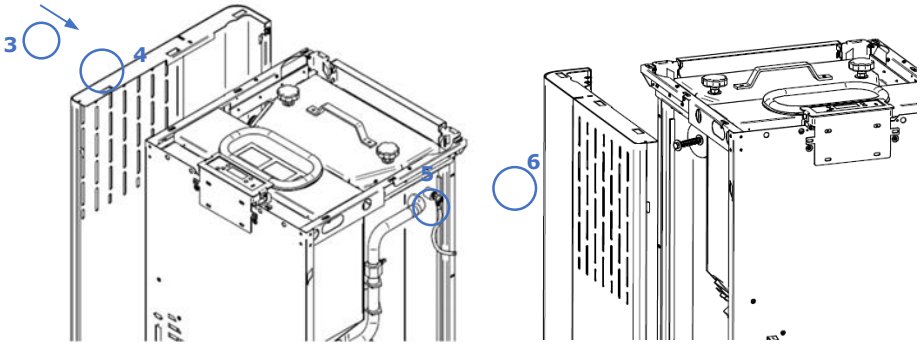


Figure 19 - Assembly of the casings K1200

It should then be moved downwards so that the casings stay fixed (7).

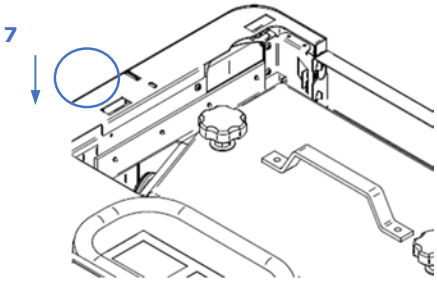


Figure 20 - Assembly of the casings K1200

c) Finally, two screws Din 7981 4.2x9.5 should be used to fix the casings to the top of the equipment (8).

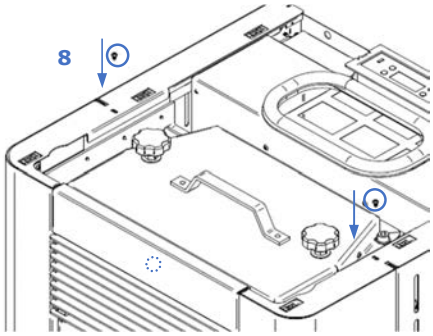


Figure 21 - Assembly of the casings K1200

d) Put the top back on the stove. To ensure that the top is properly positioned, it has four pins (1) at the bottom which must fit into the springs on the frame.

Important Note: A small amount of force may be required to properly engage the pins in the frame.

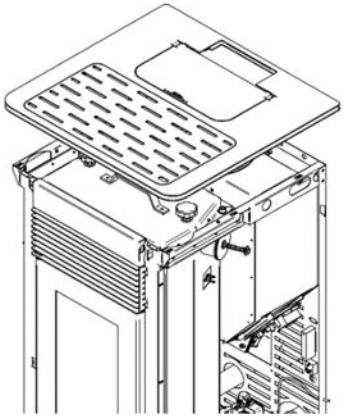
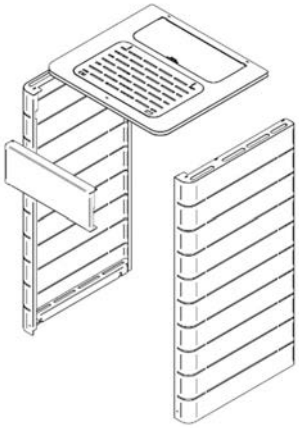


Figure 22 - Assembly of the casings K1200

13.2. Installation of the casings K1700 and K2300

In the K1700 equipment, it is possible to install two configurations of casings, curved and flat. In order to assemble the casings, the installer must have a star screwdriver (PH2 screw) available. To assemble these models, it is necessary that each of the kits contain the following parts:

- **Flat**

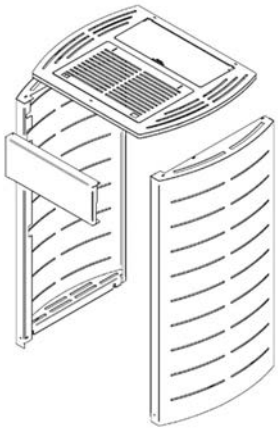


Set of casings – chosen colour

10 Screws Din 7981 4,2x9,5
(CO0704132501019)

Figure 23 - Kit Flat

- **Curved**



Set of casings – chosen colour

10 Screws Din 7981 4,2x9,5
(CO0704132501019)

Figure 24 - Kit K2

13.2.1. Flat and Curved

a) To fit the upper front cover (A), it must be placed on the front of the unit and then two Din 7981 4.2x9.5 screws accessible through the upper part of the unit (1) and another two screws in the lower part of the front cover (2) must be tightened.

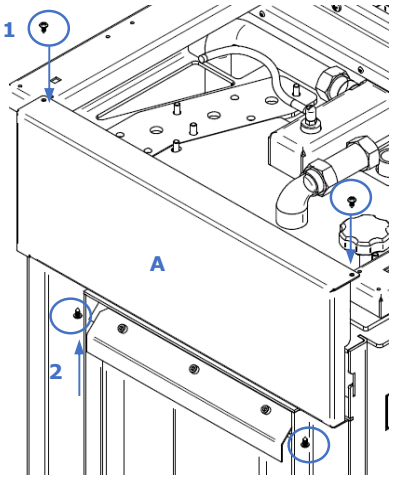


Figure 25 - Fitting the front cover K1700 and K2300

b) Then, to assemble the side covers you must fit the bottom holes of the covers (3) in the guides found on the bottom of the appliance (4).

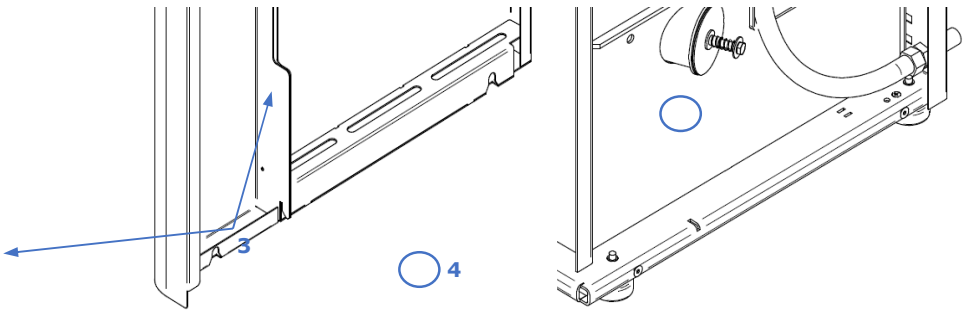


Figure 26 - Assembly of the casings K1700 and K2300

c) You should slide the side casing downwards during assembly and then tighten it using four DIN 7981 screws 4.2x9.5 (5). The same procedure should be repeated for the two side casings.

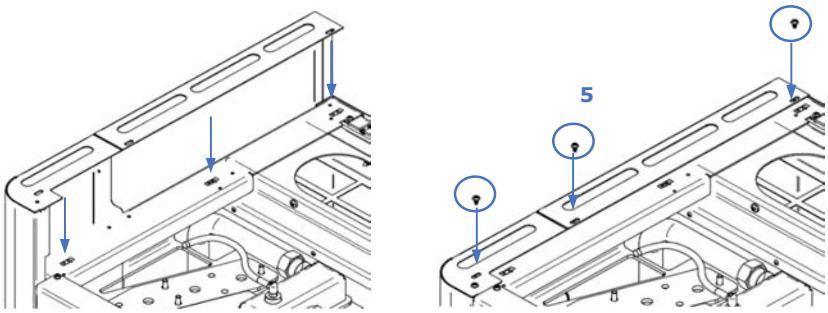


Figure 27 - Assembly of the casings K1700 and K2300

d) To finish, you must place the upper lid on top of the equipment.

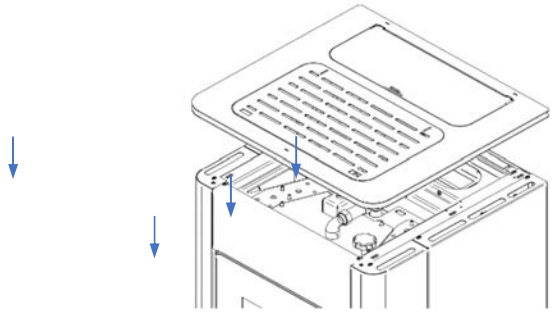


Figure 28 - Assembly of the casings K1700 and K2300

To ensure that the worktop is fitted correctly, the worktop has six pins (6) at the bottom which must engage with the springs in the frame (7). A small amount of force may be required to correctly engage the pins in the frame.

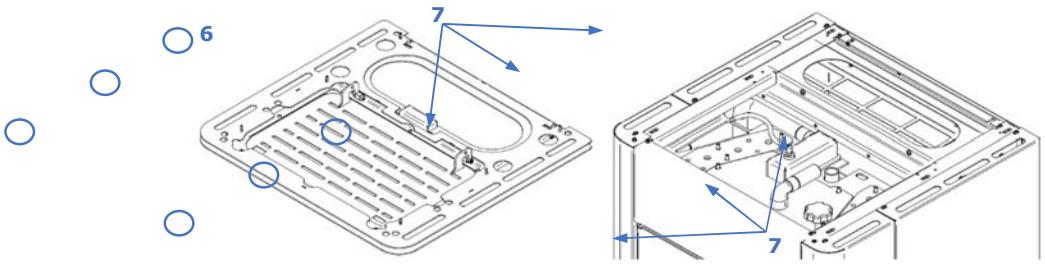
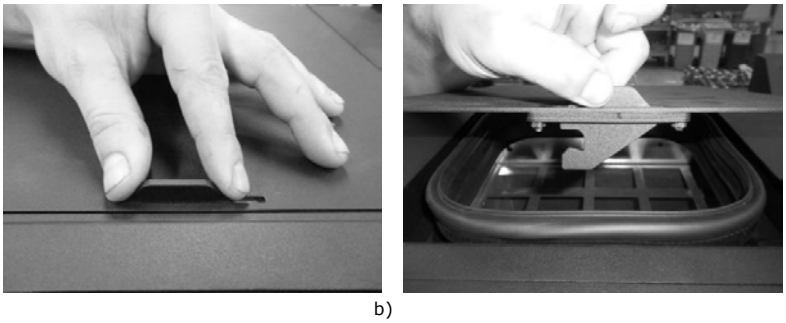


Figure 29 - Assembly of the casings K1700 and K2300

13.3. Pellet reservoir lid

The pellet reservoir is opened by sliding the bolt sideways (Figure 30-a) and lifting the lid (Figure 30-b).



a) b)

Figure 30 - Opening the lid

13.4. Filling the pellet reservoir

1 – Open the pellet reservoir lid at the top of the unit, as shown in Figure 30.

2 – Pour the pellets into the reservoir, as shown in Figure 31.

Figure 31 - Refilling the pellet reservoir

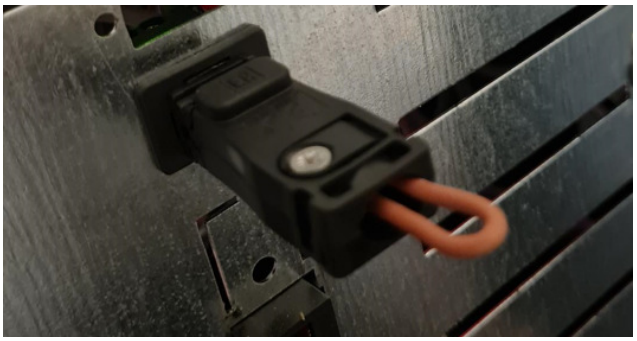
3 - Turn on the unit and close the lid, pressing it down as shown in Figure 30-a.

14. Installation and operation with the remote control (chrono-thermostat) – not included in free standing units

The free-standing pellet fire units are produced with the command device (display). Alternatively, they can be used with a generic remote-control unit (programmable thermostat).

Note: the remote control is usually accompanied by a manual. To use the remote control, the interface is already installed in the appliance.

a) b)



c)

Figure 32 - Remote control (programmable thermostat) connection interface

15. Maintenance

15.1. Daily Maintenance

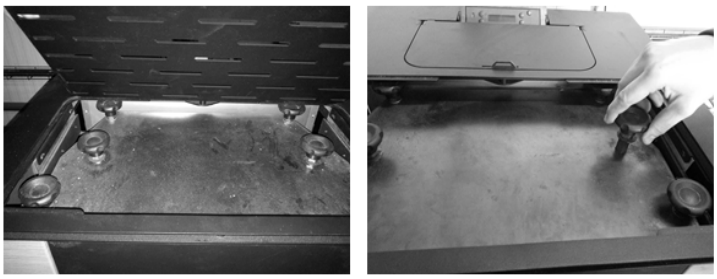
The Waterford Stanley free standing pellet fire unit requires careful maintenance. The most important thing is to remove the ash from the pellet burning area at regular intervals. This can be easily done by using a simple household vacuum cleaner. It should be cleaned after burning approximately 30 kg (K1200) / 60 kg (K1700 and K2300) of pellets.

Note: However, before cleaning, the power of the unit must be turned off and the unit should be allowed to cold off to prevent any accident.

15.2. Weekly Maintenance

- **K1200**

To perform maintenance on the back boiler model, clean the airflow pipes. To do this, raise the lid on the top of the unit (Figure 33) and then lift the levers inside several times (Figure 33) to make the dirt accumulated inside the pipes fall out.



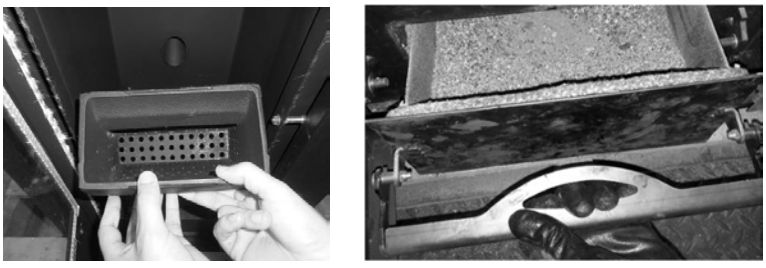
a) b)

Figure 33 - Cleaning the turbulators

Then clean the inside of the unit using a steel brush on the surfaces where dirt has accumulated (Figure 34).

Figure 34 - Cleaning the interior

Then remove the burning basket (Figure 35-a) and the ash basket (Figure 35-b) and vacuum the ashes from both. The interior of the unit must also be cleaned by opening the hatch, as shown in figure. Finally, assemble the parts in the reverse to which they were removed and close the unit door.



a) b)

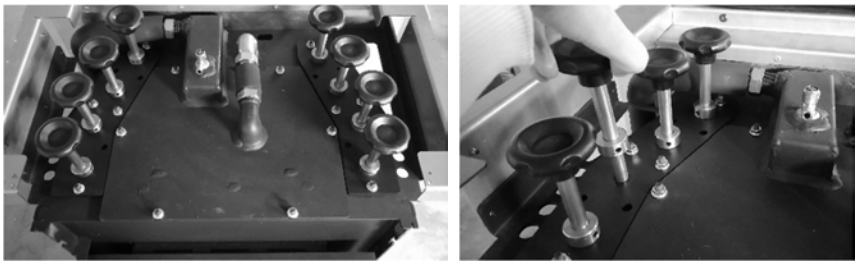
Figure 35 - a) Burning basket; b) Ash basket

WARNING! The maintenance task frequency depends on the quality of the pellets.

Note: See the warning label and read the maintenance instructions in chapter 18.

- **K1700 and K2300**

To carry out this maintenance on the water version salamander, the air passages must be cleaned. To do this, lift the lid on the upper part of the stove (Figure 36-a) and then turn and lift several times the knobs (Figure 36), in order to remove the dirt accumulated inside the pipes.



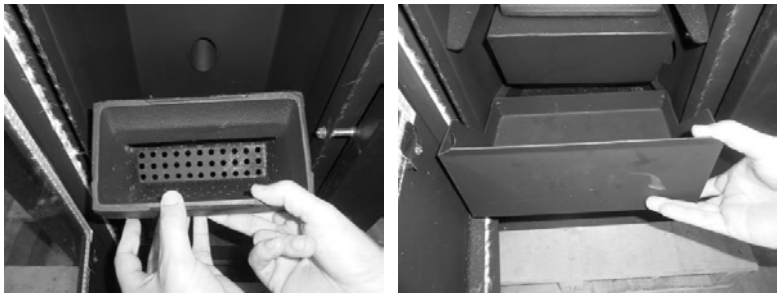
a) b)

Figure 36 - Cleaning the turbulators

The inside of the stove should then be cleaned by scrubbing the surfaces with a steel brush (Figure 37).

Figure 37 - Cleaning the interior

Then remove the burner basket (Figure 38-a) and the ash basket (Figure 38-b) and vacuum the ashes out of both. It is also necessary to clean the inside of the stove by opening the front trap, as shown in Figure 40. Finally, assemble the parts in the reverse order in which they were removed and close the door of the appliance.



a) b)

Figure 38 - a) Burning basket; b) Ash basket

Figure 39 - Cleaning the burning basket

a) b)

Figure 40 - Cleaning the interior of the unit

WARNING! The maintenance task frequency depends on the quality of the pellets.

Note: See the warning label and read the maintenance instructions in chapter 18.

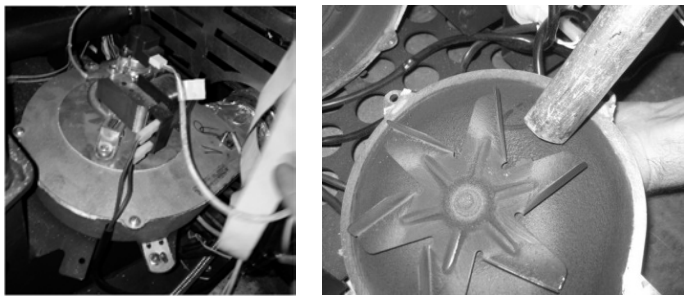
15.3. Additional cleaning

- **K1200**

Additional cleaning should be performed for every 1300-1700 lbs (600-800 kg) of pellets consumed.
To carry out this cleaning it is necessary to remove the side covers to gain access to the side covers of the combustion chamber, remove the cover and with the hoover remove the ash. With the help of a steel brush 20-25 mm in diameter and 80 cm long clean the fume passage area (Figure 41).

Figure 41 - Cleaning Vacuum the interior

If it is found that the fume extraction is not being carried out under optimum conditions, we recommend cleaning the extractor by vacuuming inside as indicated in Figure 42-a and Figure 42-b. However, this operation is recommended at least once a year.



a) b)

Figure 42 - Cleaning Vacuum the interior

The tubes through which the gases and the respective turbulators circulate must be cleaned. To do that, open the cover located in the upper part of the equipment (Figure 43-a and Figure 43-b) and remove the 4 knobs that fix the upper cover (Figure 43-c and Figure 43-d). Then pull the turbulators upwards (Figure 43-e). A hoover should be used to clean this area (Figure 43-f) and the inside of the pipes can be cleaned with a steel brush. The removed turbulators should also be cleaned with a steel brush).
To put the turbulators back on, proceed in the opposite way to that shown in the figures.

a) b)

c) d)

e) f)

Figure 43 - Cleaning the air flow pipes and turbulators

- **K1700 and K2300**

For each 1300-1700 lbs (600-800 kg) of pellets consumed, an additional cleaning should be carried out on the tubes through which the air circulates and the respective turbulators. To do this, open the cover on the upper part of the equipment (Figure 44-a) and remove the six wing nuts that secure each turbulator group (Figure 44-b and Figure 44-c).

Then pull the turbulators upwards (Figure 44-d, Figure 44-e and Figure 44-f). A hoover should be used to clean this area (Figure 44-g) and the inside of the pipes can be cleaned with a steel brush (Figure 44-h). The turbulators that have been removed should also be cleaned with a steel brush (Figure 44-i). To put the turbulators back on, proceed in the opposite way to that shown in the figures.

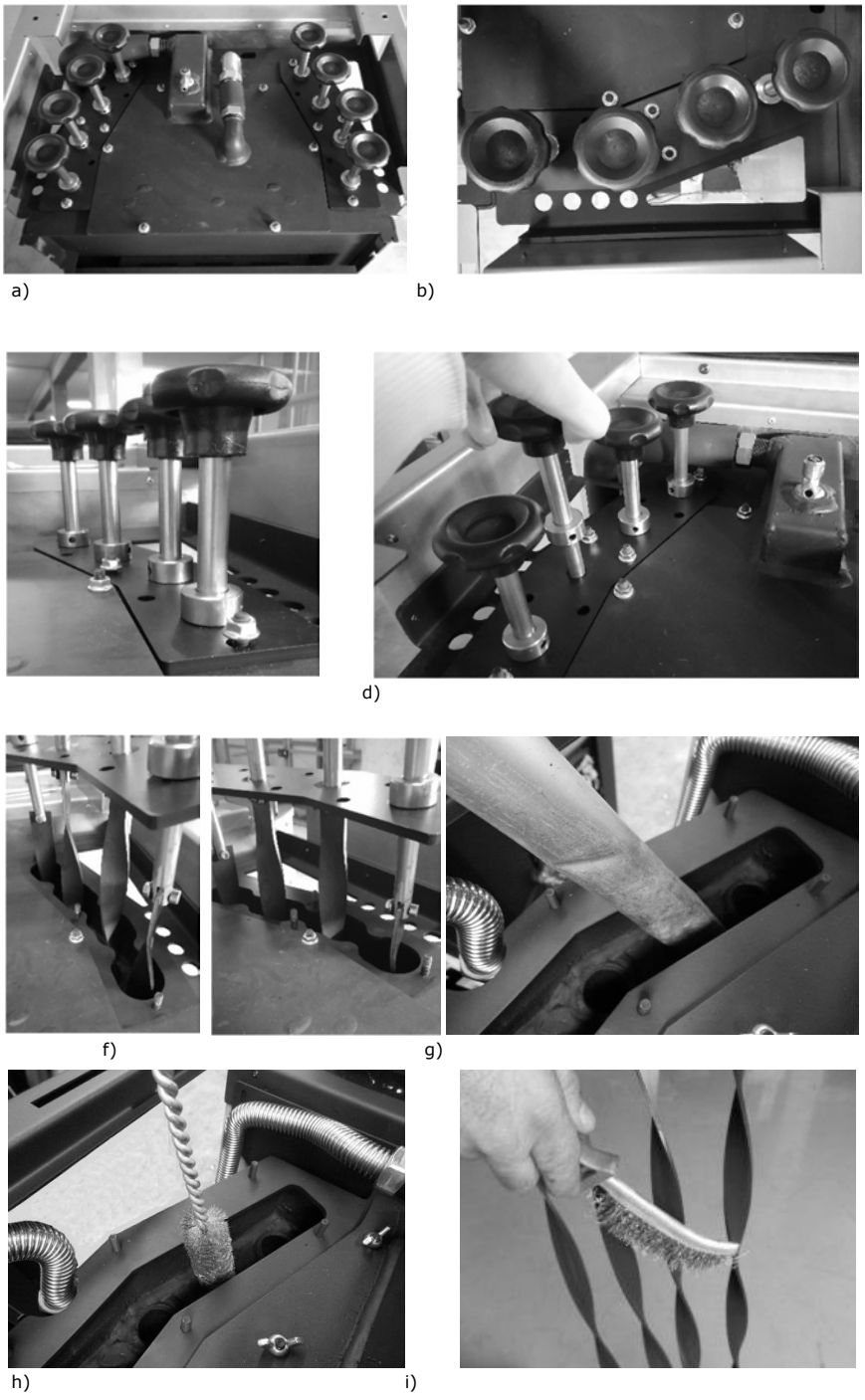
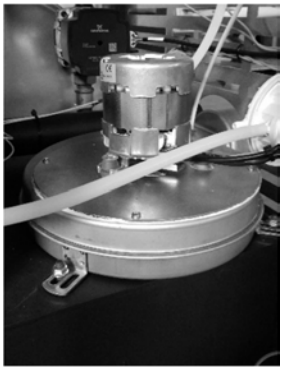


Figure 44 - Cleaning the air flow pipes and turbulators

If it is found that fume extraction is not being carried out under the best conditions, we recommend cleaning the extractor as shown in Figure 45. However, this operation is recommended at least once a year.



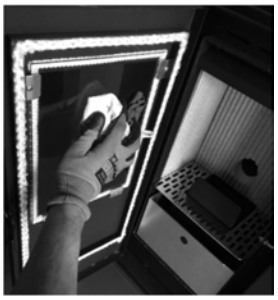
a) b)

Figure 45 - a) Remove the screws; b) Remove the extractor

15.4. Cleaning the glass

The glass may only be cleaned with the unit completely cold, and using an appropriate product, as per the instructions for use. You should prevent the product from reaching the sealing ring and painted metal parts so that no undesirable oxidation occurs. The sealing ring is glued, so should not be exposed to moisture from water or cleaning products.

Figure 46 - Incorrect cleaning of the glass



a) b)

Figure 47 - Cleaning of the glass: a) moisten a soft cloth with liquid; b) clean the glass with the cloth

WARNING! The maintenance task frequency depends on the quality of the pellets.

Note: See the warning label and read the maintenance instructions in chapter 18.

16. Maintenance Plan and Log

To ensure the proper operation of the unit, maintenance operations must be performed, as described in Chapter 16 of this Instruction Manual. There are specific maintenance tasks that must be performed by authorised technicians only. Please contact the person responsible for installing the unit. To make sure the warranty remains valid, the maintenance operations performed on this unit must comply with the frequency requirement specified in the manual, and the service technician must fill and sign the maintenance log.

Client data:

Name:	
Address:	
Telephone:	
Model:	
Serial Number:	

Company	
Technician	
Date	
Service Hours of Boiler	
Quantity of Pellets burned	

Task	**Check**	**Observations**
Clean Burner		
Clean smoke circuit and Turbulators		
Vacuum Pellet Hopper Sawdust		
Check pressure of expansion vessel		
Check 3 bar safety valve		
Check fluid in Hydraulic circuit		
Clean the smoke extractor		
Check and clean the inspection T		
Clean Chimney		
Check screw tightness		
Check Boiler cap and pellet Hopper cover		

17. Maintenance Guide Level

Figure 48 - Maintenance guide label

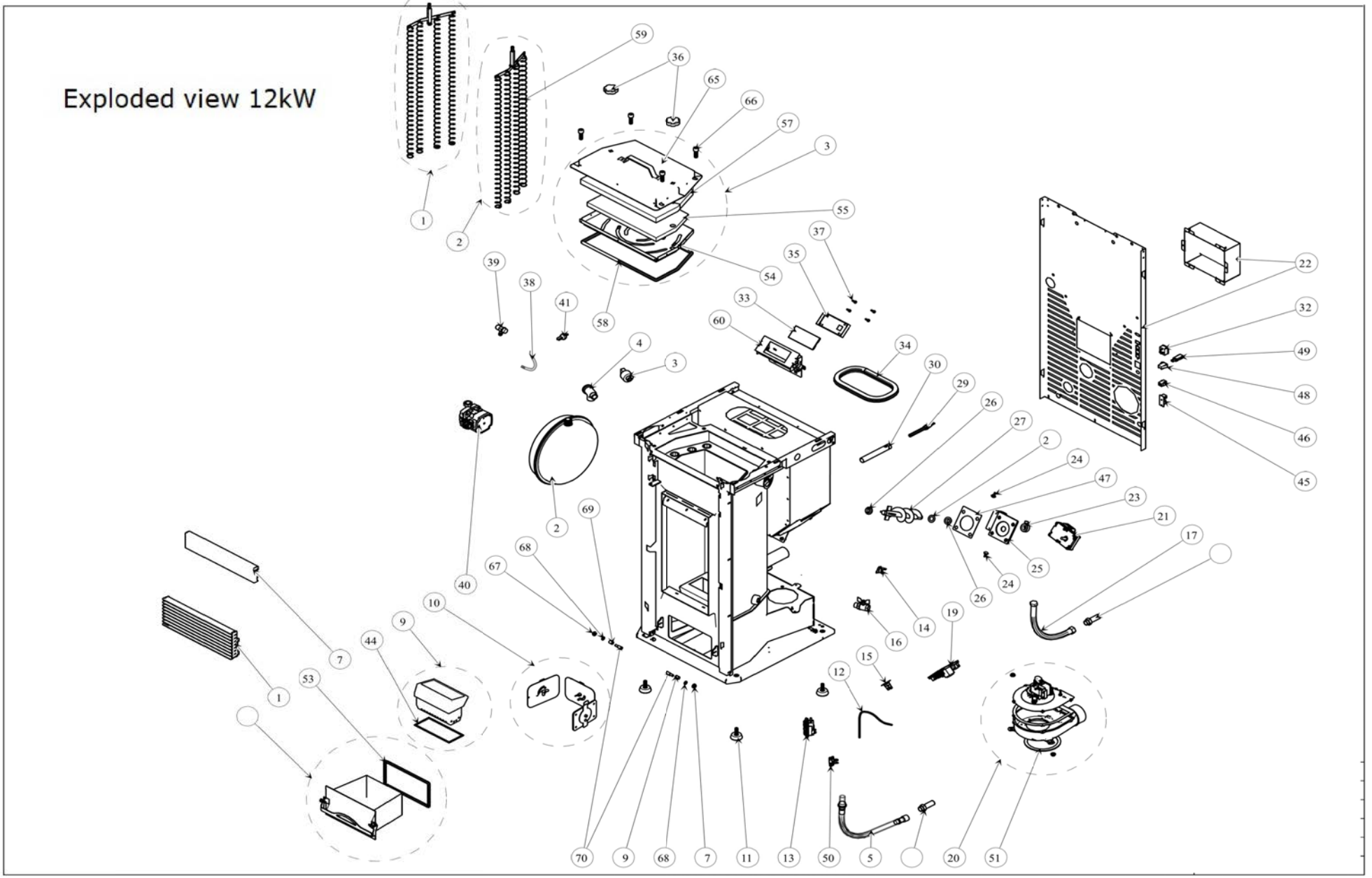
Note: The safety warnings sticker label is supplied to attach to the underside unit's pellet lid, in the language of your choice. (Spanish, English, French, Portuguese and Italian).

18. Spare Parts Lists & Exploded Views.

Parts List 12kW

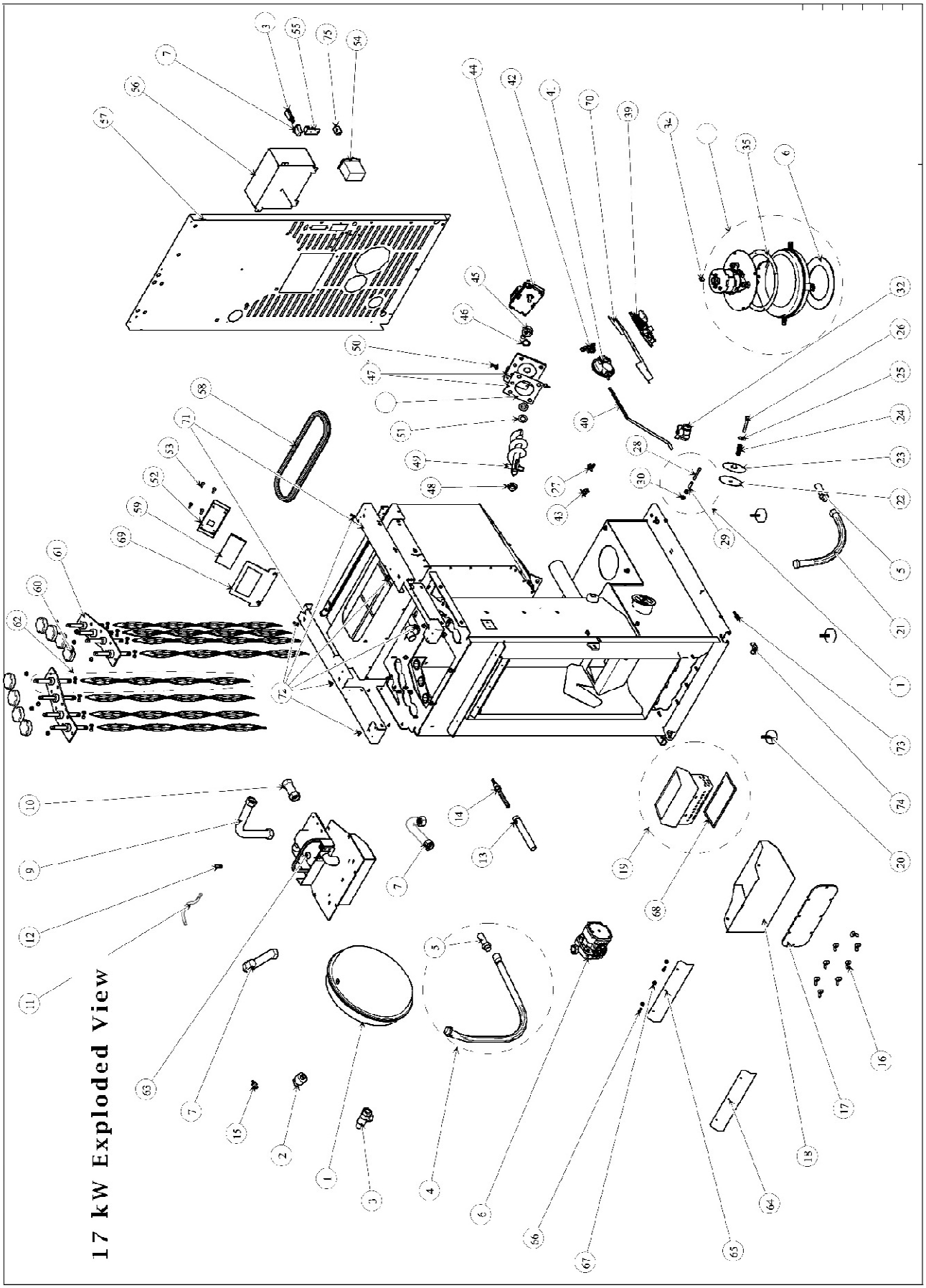
1	IC0132000300011	Front Grill	**35**	IS1116005260000	Display Cover
2	CO0802000000000	6 litre expansion vessel	**36**	CO0718230000112	Turbulator handle c/w M10 Nut
3	CO0315000000050	Water pressure sensor	**37**	CO0704133502224	Screw Din 7981 3.5x22 Z/B
4	CO0803010000000	Safety Valve 3 bar	**38**	IS1510080000003	Silicone Tube 8x6x400
5	IC0467000000000	Hose	**39**	CO0813000000009	Manual Bleed Screw
6	CO0806022604274	Double Bushing	**40**	CO0801000000007	Pump Wilo 15-130/7-50
7	IS0216015300022	Front Cover	**41**	CO0304000000040	Water Temperature Sensor
8	IC0402000260000	Ash Tray 12kw	**44**	IS3024050000001	Rope Dia % x 400
9	IC0425000000007	Burn Pot	**45**	CO0312000000013	Wifi interface module
10	IC0120000260022	Trap door	**46**	CO0312000000121	Panel Adapter RJ11/RJ11 with cable
11	CO0713000000212	Levelling Bolt	**47**	CO1206020000010	Worm Motor Joint 109.5x100x2
12	IS1510080000002	Silicone Tube	**48**	CO0300000000010	Connector (EPS0024)
13	CO0315000000030	Pressure Switch	**49**	CO0300000000011	Connector (EPN0034)
14	CO0306000000030	Thermostat 95 Deg C	**50**	CO0315000000060	Pressure switch support
15	CO0306000000020	Thermostat 11 0Deg C	**51**	CO1206020000003	Extractor Joint VFC1-120 211x202x2
16	CO0803200000001	I/2 " valve	**53**	IS3024100000001	Rope 10mm - 1 m
17	CO0805013250001	Flexible 1/2 "hose 500mm	**54**	IS0141015260006	Turbulator plate inner
19	IS6600000000021	Circuit board 12kW Tiemme	**55**	IS1040025000010	383x223x20 Insulation
20	IC0490000000006	Extractor Tan 12kW	**57**	IS6524000000001	Rockwool Lid
21	CO0310000000150	Auger Motor 2 RPM	**58**	IS3024120000000	Rope 12 x 2000
22	IC0212010030007	Back Panel 12kW	**59**	CO012332T034812	T348
23	IC0114000000000	T143 Bushing	**60**	IC0165000300000	Display Support.
24	CO0728000000000	Rubber stop	**61**	IC0465000260004	Turbulator Springs left 12 kW
25	IC0414000260001	Motor Support	**62**	IC0465000260005	Turbulator Springs right 12 kW
26	CO0725001801100	T342	**63**	IC0416000260025	Turbulator cover assembly
27	IC0415000000000	Wormscrew - Boiler version	**65**	IC0416000260012	Turbulator cover
28	IS0899012000000	Washer	**66**	CO0704061003019	Screw Din 912 8.8 M10x30 Z/P
29	CO0303000000006	Ceramic igniter	**67**	CO0705250500002	Nut Din 6923 Stainless Steel M5
30	IC0409000000002	Igniter Tube	**68**	CO0703010500024	Washer Din 125 M5 Z/B
32	CO0312000001000	Electrical Socket	**69**	CO010225T028612	T286
33	IS6600000000008	Display Pellets	**70**	CO012025T028912	T289 Prf Steel Sxt Int M3x10
34	IS1610000000010	Hopper seal	**71**	CO0201050000015	K1200-2 Door glass.

Exploded view 12kW



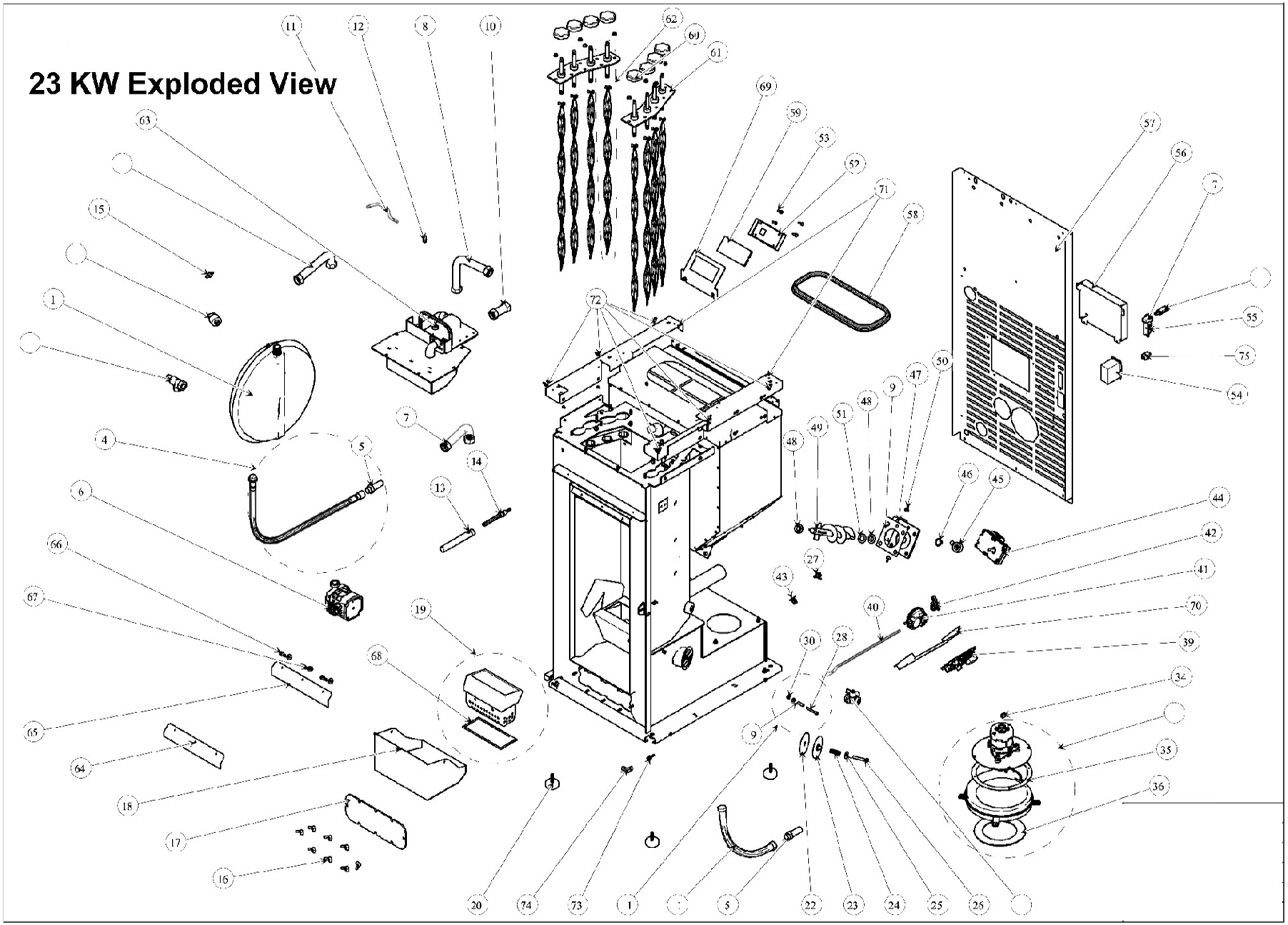
Parts List 17kW

1	CO0802000000000	6 litre expansion vessel	**39**	IS6600000000016	Circuit Board programmed 17kW
2	CO0315000000050	Water pressure sensor	**40**	IS1510080000007	Silicone Tube
3	CO0803010000000	Safety Valve 3 bar	**41**	CO0315000000030	Pressure Switch
4	IC0467000000003	Hose 650mm	**42**	CO0315000000060	Pressure switch support
5	CO0806022604274	Double Bushing	**43**	CO0306000000020	Thermostat 11 0Deg C
6	CO0801000000007	Pump Wilo 15-130/7-50	**44**	CO0310000000150	Auger Motor 2 RPM
7	IC0809000000008	Flexible Stainless Ins. 210mm	**45**	IC0114000000000	T143 Bushing
8	CO1206020000010	Worm Motor Joint 109.5x100x2	**46**	CO0721282201212	Din 471 22x1.2
9	IC0809000000003	Flexible Stainless Ins. 290mm	**47**	IC0414000260001	Motor Support
10	IC0809000000007	Flexible Stainless Ins. 50mm	**48**	CO010226T150A12	Wormscrew support
11	IS1510080000003	Silicone Tube 8x6x400	**49**	IC0415000000000	Wormscrew - Boiler version
12	CO0813000000009	Manual Bleed Screw	**50**	CO0728000000000	Rubber stop
13	IC0409000000002	Igniter Tube	**51**	IS0899012000000	Washer
14	CO0303000000006	Ceramic igniter	**52**	IS1116005260000	Display Cover
15	CO0304000000040	Water Temperature Sensor	**53**	CO0704133502224	Screw Din 7981 3.5x22 Z/B
16	CO0705260600024	Nut Din 315 M6 Z/B	**54**	CO0317000000030	On-Off Switch- Filter
17	IS0120000260002	Trapdoor 17/23 kW	**55**	CO0312000000013	Wifi interface module
18	IS0102015260015	Ash Pan 17kW	**56**	IS1116010030004	17 kW Motor Protection Cover
19	IS3525000260002	Burn pot	**57**	IS1112010030006	17kW Back Panel
20	CO0713000000212	Levelling Bolt	**58**	IS1610000000006	Hopper Door Seal 1025mm
21	CO0805013250001	Flexible 1/2 "hose 500mm	**59**	IS6600000000008	Display Pellets
22	CO1206020000016	Safety pressure Vent gasket	**60**	CO0718230000112	Turbulator handle c/w M10 Nut
23	IC0416000260000	Safety pressure Vent Plate	**61**	IS0116050260006	Turbulator Plate
24	CO012332T019524	T195	**62**	IC0426000260000	Turbulator
25	CO0703220899919	T195 Spring Steel 36x13 Diam	**63**	IC0408000000022	Water handling
26	CO0704070805024	Screw Din 931 8.8 M8x50	**64**	IS0861015040000	Deflector plate (steel door model)
27	CO0306000000030	Thermostat 95 Deg C	**65**	IS0861015040001	Deflector plate (steel glass model)
28	CO0704060604524	Screw Din 912 8.8 M6x45	**66**	CO0704060501602	Screw Din 912 Stainless Steel
29	CO010225T025324	T253	**67**	CO0705250500002	Nut Din 6923 Stainless Steel M5
30	CO0705190600024	Nut Din 6924 M6	**68**	ME1504000120002	Burn pot Rope 6mm
31	IC0414000000010	Nut- Bolt Assy	**69**	IS0265030300016	Display Support 17/23 V1
32	CO0803200000001	I/2 " valve	**70**	IS0465000030010	PCB Support
33	IC0490000000003	Extractor Fan Assembly	**71**	IC0212010030015	Side supports 17Kw
34	CO0312000000035	Encoder	**72**	CO0716009000000	2,5-3,2 spring clip
35	CO1206020000001	Extractor Fan gasket	**73**	CO1002412700001	1/8" elbow
36	CO1206020000007	Gasket-Fan Body to Main body	**74**	CO0806062611270	1/8" nipple
37	CO0300000000010	Connector (EPS0024)	**75**	CO0312000000121	Panel Adapter RJ11/RJ11 with cable
38	CO0300000000011	Connector (EPN0034)	**76**	CO0201050000016	K2300-2 & K1700-2 Door glass.


17 kW Exploded View

Parts List 23kW

1	CO0802000000004	10 litre expansion vessel	38	CO0300000000011	Connector (EPN0034)
2	CO0315000000050	Water pressure sensor	39	IS6600000000015	Circuit Board programmed 23kW
3	CO0803010000000	Safety Valve 3 bar	40	IS1510080000003	Silicone Tube 8x6x400
4	IC0467000000002	Hose 770mm	41	CO0315000000030	Pressure Switch
5	CO0806022604274	Double Bushing	42	CO0315000000060	Pressure switch support
6	CO0801000000007	Pump Wilo 15-130/7-50	43	CO0306000000020	Thermosat 11 0Deg C
7	IC0809000000006	Flexible Stainless Ins. 230mm	44	CO0310000000150	Auger Motor 2 RPM
8	IC0809000000001	Flexible Stainless Ins. 250mm	45	IC0114000000000	T143 Bushing
9	CO1206020000010	Worm Motor Joint 109.5x100x2	46	CO0721282201212	Din 471 22x1.2
10	IC0809000000007	Flexible Stainless Ins. 50mm	47	IC0414000260001	Motor Support
11	IS1510080000003	Silicone Tube 8x6x400	48	CO010226T150A12	Wormscrew support
12	CO0813000000009	Manual Blled Screw	49	IC0415000000000	Wormscrew - Boiler version
13	IC0409000000002	Igniter Tube	50	CO0728000000000	Rubber stop
14	CO0303000000006	Ceramic igniter	51	IS0899012000000	Washer
15	CO0304000000040	Water Temperature Sensor	52	IS1116005260000	Display Cover
16	CO0705260600024	Nut Din 315 M6 Z/B	53	CO0704133502224	Screw Din 7981 3.5x22 Z/B
17	IS0120000260002	Trapdoor 17/23 kW	54	CO0317000000030	On-Off Switch- Filter
18	IS0102015260016	Ash Pan 23kW	55	CO0312000000013	Wifi interface module
19	IS3525000260002	Burn pot	56	IS1116010030005	23 kW Motor Protection Cover
20	CO0713000000212	Levelling Bolt	57	IS1112010030005	23kW Back Panel
21	CO0805013270000	Flexible 1/2 "hose 700mm	58	IS1610000000013	Hopper Door Seal 950mm
22	CO1206020000016	Safety pressure Vent gasket	59	IS6600000000008	Display Pellets
23	IC0416000260000	Safety pressure Vent Plate	60	CO0718230000112	Turbulator handle c/w M10 Nut
24	CO012332T019524	T195	61	IS0116050260006	Turbulator Plate
25	CO0703220899919	T195 Spring Steel 36x13 Diam	62	IC0426000260000	Turbulator
26	CO0704070805024	Screw Din 931 8.8 M8x50	63	IC0408000000022	Water handling
27	CO0306000000030	Thermostat 95 Deg C	64	IS0861015040000	Deflector plate (steel door model)
28	CO0704060604524	Screw Din 912 8.8 M6x45	65	IS0861015040001	Deflector plate (steel glass model)
29	CO010225T025324	T253	66	CO0704060501602	Screw Din 912 Stainless Steel
30	CO0705190600024	Nut Din 6924 M6	67	CO0705250500002	Nut Din 6923 Stainless Steel M5
31	IC0414000000010	Nut- Bolt Assy	68	ME1504000120002	Burn pot Rope 6mm
32	CO0803200000001	I/2 " valve	69	IS0265030300016	Display Support 17/23 V1
33	IC0490000000003	Extractor Fan Assembly	70	IS0465000030010	PCB Support
34	CO0312000000035	Encoder	71	IC0212010030016	Side supports 23 kW
35	CO1206020000001	Extractor Fan gasket	72	CO0716009000000	2,5-3,2 spring clip
36	CO1206020000007	Gasket-Fan Body to Main body	73	CO1002412700001	1/8" elbow
37	CO0300000000010	Connector (EPS0024)	74	CO0806062611270	1/8" nipple
	CO0201050000016	K2300-2 & K1700-2 Door glass.	75	CO0312000000121	Panel Adapter RJ11/RJ11 with cable


23 KW Exploded View

19. Installation Diagrams

Simple connection only the central heating radiators

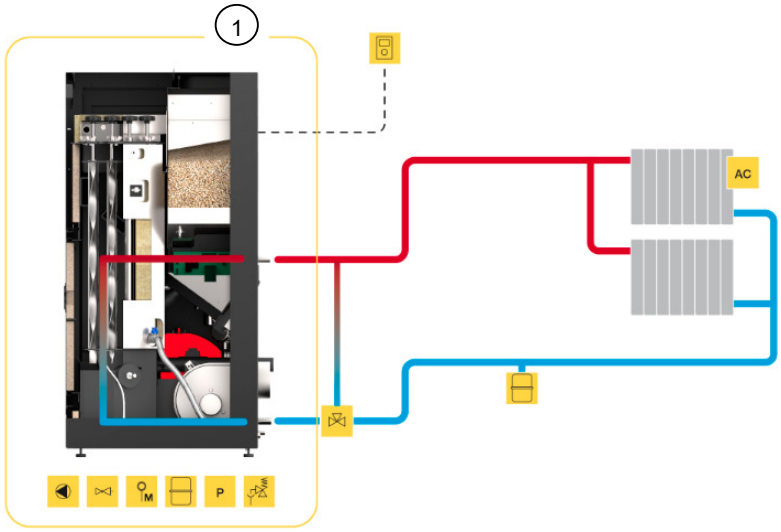


Figure 49 - Simple connection only the central heating radiators

⚠ The installation of an anti-condensation valve is recommended for K1200.

Note:

- The chrono-thermostat should have 1 to 2 °C of hysterisis. (1)
- Hydro independent "On" (water temperature-controlled regulation)
- Modulating pump "On"
- Water sensing inhibition "On"
- Alternative hydro shutdown "On"
- Pump "On" = 50 °C
- Pump "Off" = 50 °C

We can set / change according to the customer's discretion to another temperature.

Connection to central heating radiators and sanitary water combined with solar panel

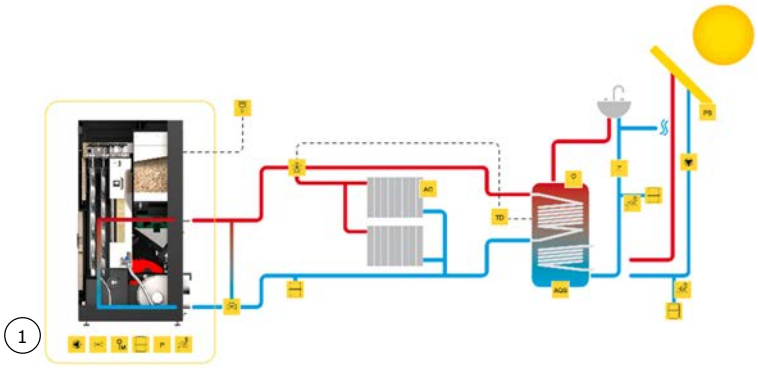


Figure 50 - Connection to central heating radiators and sanitary water combined with solar panel

(1) ⚠ The installation of an anti-condensation valve is recommended for K1200.

Example: electrical connection of a thermostat (ambient air monitoring) of a differential thermostat connected to the deposit and three-way valve to a relay box.

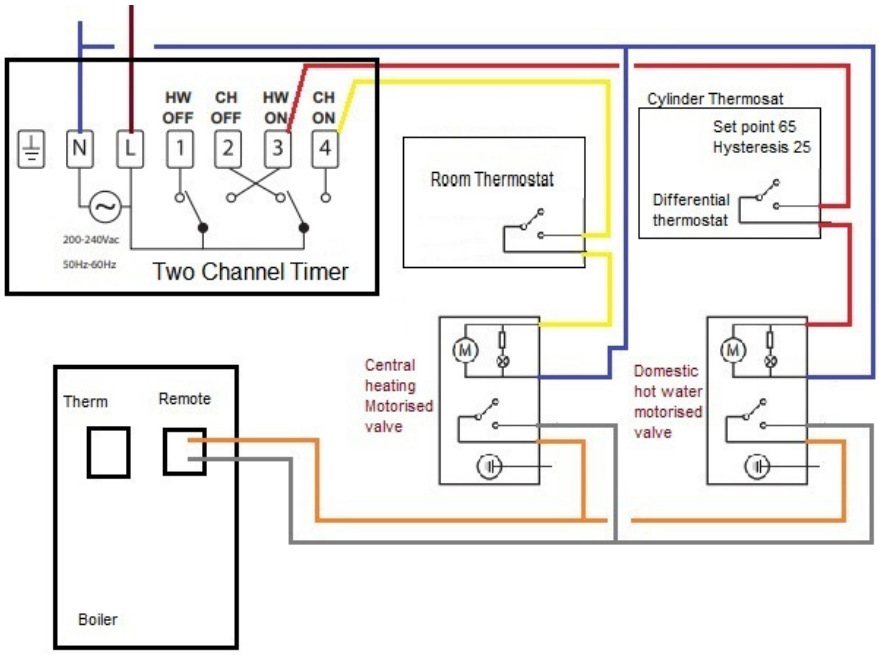


Figure 51 - Electrical connection of a thermostat (ambient air monitoring) of a differential thermostat connected to the domestic hot water and 2 way motorized valves

Connection to central heating radiators with another boiler support and sanitary water combined with solar panel

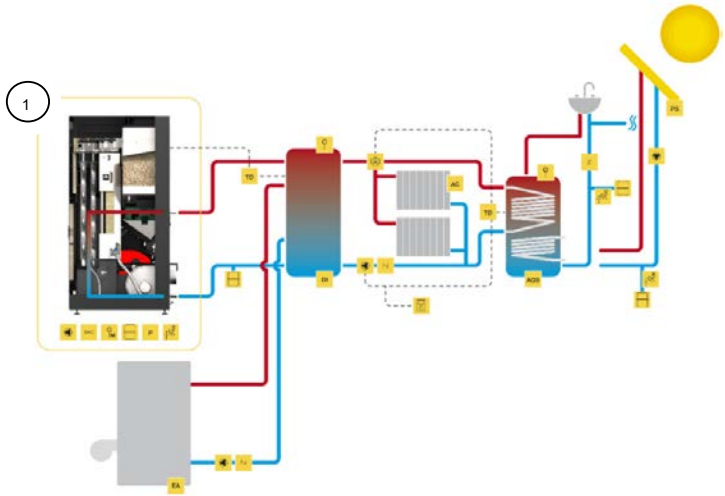


Figure 52 - Connection to central heating radiators with another boiler support and sanitary water combined with solar panel

Note:

- The differential thermostat must have a hysterisis of 15 to 25 °C. (1)
  - Hydro independent "Off" (water temperature-controlled regulation), put the boiler in "manual" mode and power level to "5"
  - Modulating pump "On"
  - Water sensing inhibition "On"
  - Alternative hydro shutdown "On"
  - Pump "On" = 50 °C
  - Pump "Off" = same or thermostat temperature 1°C below the temperature differential thermostat.

When using the generator with differential thermostat the machine must be connected in the CONNECTION "Remote".

Calculation Buffer Tank: For pellet boiler it's recommended that the buffer tank has 20l/kW.

NOTE: For Tiemme electronics when connecting the stove to the inertia tank it is necessary to change the following parameters:

P77=04

A01=04

(Contact technical support if necessary)

Connecting underfloor heating in conjunction with another boiler support and sanitary water combined with solar

panel

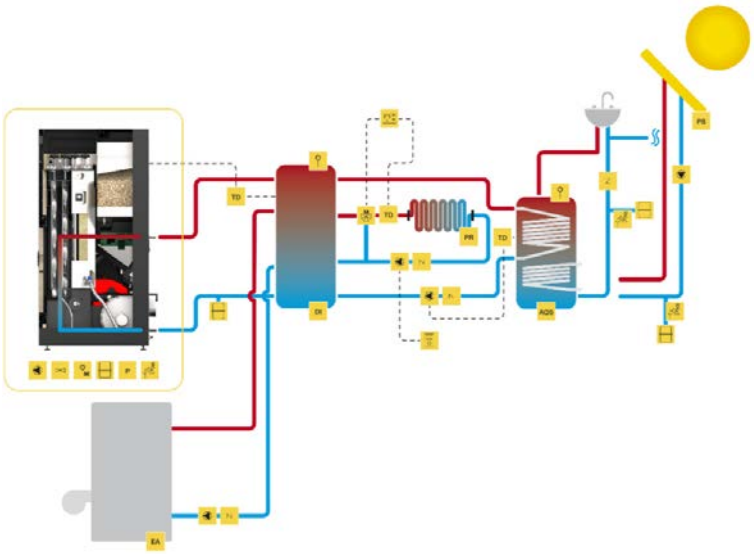


Figure 53 - Connecting underfloor heating in conjunction with another boiler support and sanitary water combined with solar panel

NOTE: For Tiemme electronics when connecting the stove to the inertia tank it is necessary to change the following parameters:

P77=04

A01=04

(Contact technical support if necessary)

Symbols

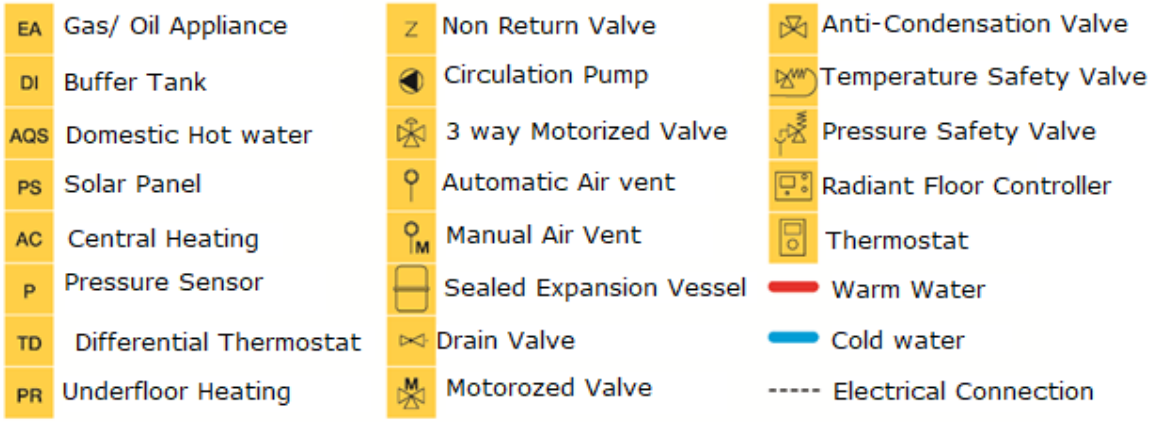


Figure 54 - Symbols

20. Electrical diagram of the Free-Standing Pellet Fire unit

20.1. Electrical diagram – Applicable to Tiemme electronics

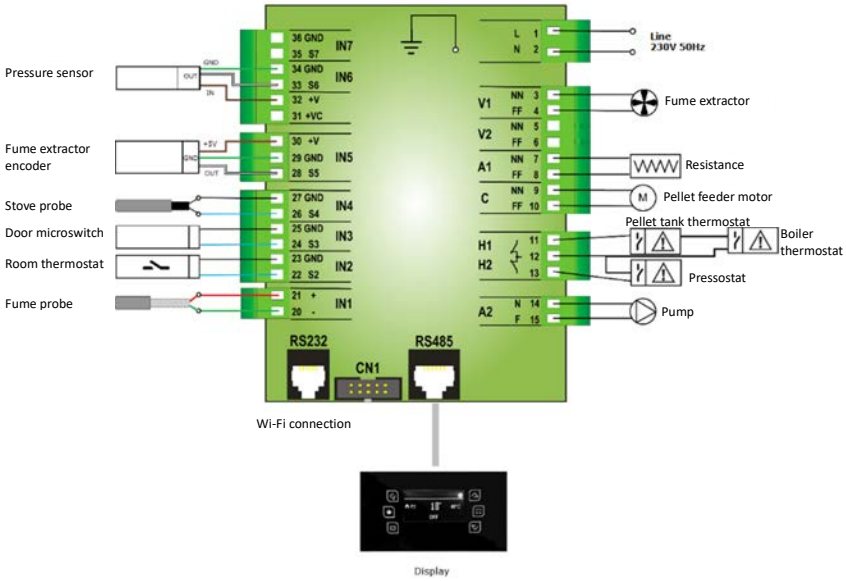


Figure 55 - Electrical diagram (Tiemme electronics)

21. Hydraulic Pumps

21.1. Pump UPM3 FLEX AS 15-70 130mm

Performance graph for the circulating pump

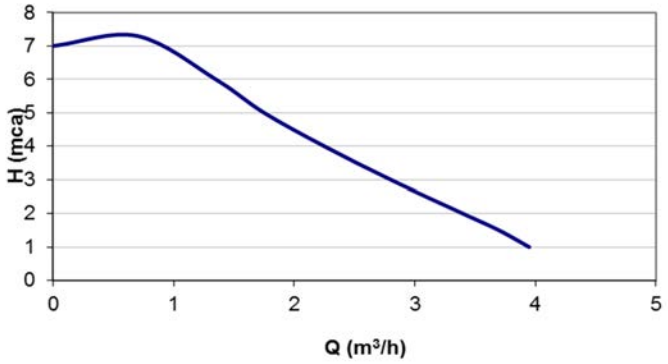


Figure 56 - Circulating pump performance graph

User interface

The user interface was designed with a single button, a red/green LED and four yellow LEDs.

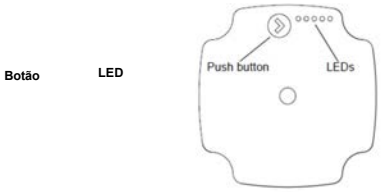


Figure 57 - User interface

When the pump is operating, the LED 1 is green. 4 yellow LEDs indicate the current performance of the pump, as shown in the following table.

Active LED	Performance (%)
LED Green	0 (Standby)
LED Green + 1 LED Yellow	0 - 25
LED Green + 2 LED Yellow	25 - 50
LED Green + 3 LED Yellow	50 - 75
LED Green + 4 LED Yellow	75 - 100

Table 5 - Performance of the pump

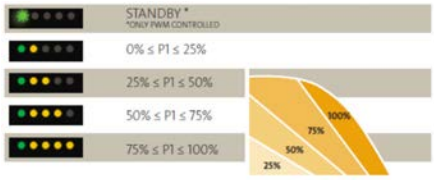


Figure 58 - Performance of the pump

Note: the pump is configured as standard at full capacity (75-100%).

Changing the setting of the pump

Can be chosen between the view of the performance of pump and the view of settings, just press the button once.

If you need to change the pump performance, you must press the button for 2 seconds (Figure 59), after this action the LEDs start blinking, then you must press the button until the desired setting (Table 6), after 10 seconds the display automatically switches to the view of performance with alteration saved.

Figure 59 - Pump settings

Maximum manometric height (m)	Settings
2-4	
3-5	
4-6	
5-7	

Table 6 - Pump settings

Alarms

If the pump detects one or more errors, the LED 1 changes from green to red when the alarm is activated the yellow LED indicates

the type of alarm (see Table 6), if we have several alarms at the same time, the yellow LED indicates the alarm with higher priority, the priority sequence is defined on table as follows:

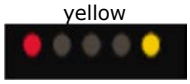
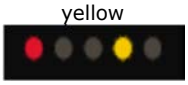
Display	Priority	Alarm	Action
LED 1 red + LED 5 yellow 	1	Rotor is blocked	Wait or deblock the shaft
LED 1 red + LED 4 yellow 	2	Supply voltage too low	Control the supply voltage
LED 1 red + LED 3 yellow 	3	Electrical error	Control the supply voltage or replace the pump

Table 7 - Alarms

21.2. Pump Wilo 15-130/7-50

The Wilo 15-130/7 50 circulator pump consists of:

1. Pump housing with screwed connections
2. Glandless motor
3. Condensate drain openings (4x around circumference)
4. Housing screws
5. Control module
6. Rating plate
7. Operating button for pump adjustment
8. Run signal/fault signal LED
9. Display of selected control mode
10. Display of selected characteristic curve (I, II or III)

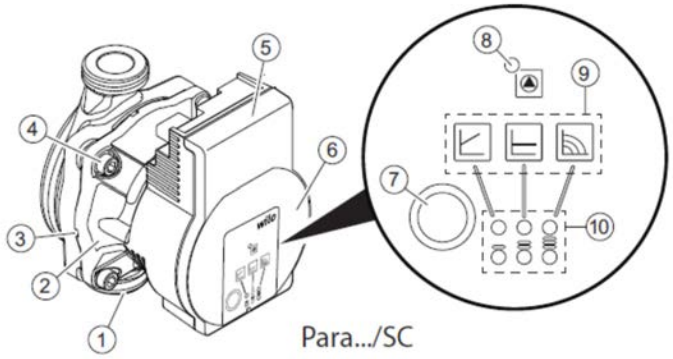


Figure 60 - Pump Wilo

Installing the pump

Observe the following points when installing the pump (Figure 61):

- Note the direction arrow on the pump housing (1).
- Install glandless motor (2) horizontally, without mechanical tension.
- Place gaskets in the screwed connections.
- Screw on threaded pipe unions.
- Use an open-end wrench to secure the pump against twisting and screw tightly to piping.
- Re-mount the thermal insulation shell if required.

Figure 61 – Installing the pump

WARNING!

- Insufficient heat dissipation and condensation water may damage the control module and the glandless motor.
- Do not thermally insulate the glandless motor (2).
- Ensure all condensate drain openings (3) are kept free.

Indicator lights

The user interface is designed with the following LED indicators and control keys.

Active LED	Description
	- LED is lit up in green in normal operation. - LED lights up/flashes in case of a fault.
	- Display of selected control mode ΔP-v, Δp-c and constant speed (the only mode available in Waterford Stanley electronics).
	- Display of selected pump curve (I, II, III) within the control mode.
	- LED indicator combinations during the pump venting function, manual restart and key lock.

Table 8 - Indicator lights

Operating button

Press

- Select control mode.
- Select pump curve (I, II e III - Figure 66) within the control mode.

Press and hold

- Activate the pump venting function (press for 3 seconds).
- Activate manual restart (press for 5 seconds).
- Lock/unlock button (press for 8 seconds).

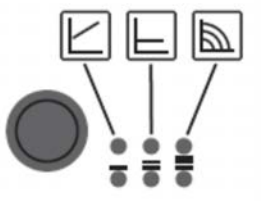


Figure 62 - Operating button

Setting the control mode

Select control mode

The LED selection of control modes and corresponding pump curves takes place in clockwise succession.

Press the operating button briefly (approx. 1 second). LEDs display the set control mode and pump curve.

In the Waterford Stanley's electronics, it is only possible to select the **green** diagram corresponding to constant speed, but 3

different speeds can be chosen.

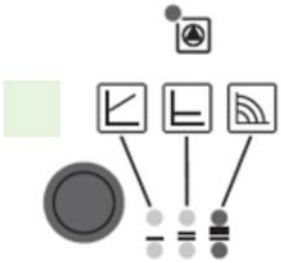


Figure 63 - Control mode

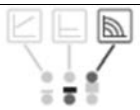
LED display	Control mode	Pump curve
	Constant speed.	I
	Constant speed.	II
	Constant speed.	III

Table 9 - Control mode

Functions

Venting

If the pump does not vent automatically:

- Activate the pump venting function via the operating button, press and hold for 3 seconds, then release.
- The pump venting function is initiated and lasts 10 minutes.
- The top and bottom LED rows flash in turn at 1 second intervals.
- To cancel, press and hold the operating button for 3 seconds.

Manual restart

The pump attempts an automatic restart upon detecting a blockage.

If the pump does not restart automatically:

- Activate manual restart via the operating button: press and hold for 5 seconds, then release.
- The restart function is initiated, and lasts max. 10 minutes.
- The LEDs flash in succession clockwise.
- To cancel, press and hold the operating button for 5 seconds.

WARNING! After the restart, the LED display shows the previously set values of the pump.

Lock/unlock the button

- To activate the key lock, press and hold the operating button for 8 seconds until the LEDs for the selected setting briefly flash, then release.
- LEDs flash constantly at 1-second intervals.
- The key lock is activated: pump settings can no longer be changed.
- The key lock is deactivated in the same manner as it is activated.

Figure 64 - Manual restart

Figure 65 - Lock/unlock the button

Activating factory setting

- The factory setting is activated by pressing and holding the operating button whilst switching off the pump.
- Press and hold the operating button for at least 4 seconds.
- All LEDs flash for 1 second.
- The LEDs for the last setting flash for 1 second.
- When the pump is switched on again, the pump runs using

the factory settings (delivery condition).

Faults, Causes and Solutions

The following tables show some of the problems of installing Wilo pumps.

Faults	Causes	Solutions
Pump is not running although the power supply is switched on	No voltage supply at pump	Rectify the power interruption
Noisy pump	Cavitation due to insufficient suction pressure	Increase the system pressure within the permissible range Check the delivery head and set it to a lower head if necessary
Building does not warm up	Thermal output of the heating surfaces is too low	Increase setpoint

Table 10 - List of faults and solutions

LED	Faults	Causes	Solutions
Lights up red	Blocking	Rotor blocked	Activate manual restart or contact customer service
	Contacting/winding	Winding defective	

Flashes red 	Under/overvoltage	Power supply too low/high on mains side	Check mains voltage and operating conditions, and request customer service
	Excessive module temperature	Module interior too warm	
	Short-circuit	Motor current too high	
Flashes red/green 	Generator operation	Water is flowing through the pump hydraulics, but there is no mains voltage at the pump	Check the mains voltage, water quantity/pressure and the ambient conditions
	Dry run	Air in the pump	
	Overload	Sluggish motor, pump is operated outside of its specifications (e.g., high module temperature). The speed is lower than during normal operation.	

Table 11 - List of faults and solutions

Reading performance curve

For a given speed, the pump can overcome a given pressure drop, for a given flow:

- The pressure drop (or manometric height) is identified on the ordinate axis, with the units in metres (m) - It depends on the installation.
- The flow rate is identified on the x-axis, with the units in cubic metres per hour (m^3/h) - Depends on the power to be conditioned.
- Constant velocity curves are present in the graph, identified in I, II and III.
- The installer must set the required curve from the lowest to the highest speed by means of the required flow rate and the head loss of the installation.
- The pumps run at the highest speed in the factory.

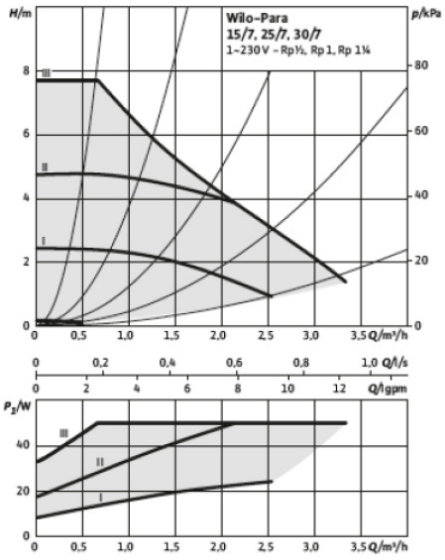


Figure 66 - Pump performance - Constant speeds I, II and III

22. Life Cycle of a Free-Standing Fire Unit

Approximately 90% of the materials used to manufacture these units are recyclable, contributing towards a reduced environmental impact and a more sustainable planet.

End-of-life units should be processed by licensed waste operators. We recommend contacting your local council to ensure the unit is collected and handled pursuant to any legal requirements.

23. Sustainability

WATERFORD STANLEY is a member of the entity responsible for collecting waste electrical and electronic equipment (WEEE). Thus, end-of-life units with forced ventilation systems should be transported to an appropriate WEEE-processing location. When you disassemble your equipment, you can take its electrical components to your nearest WEEE collection point.

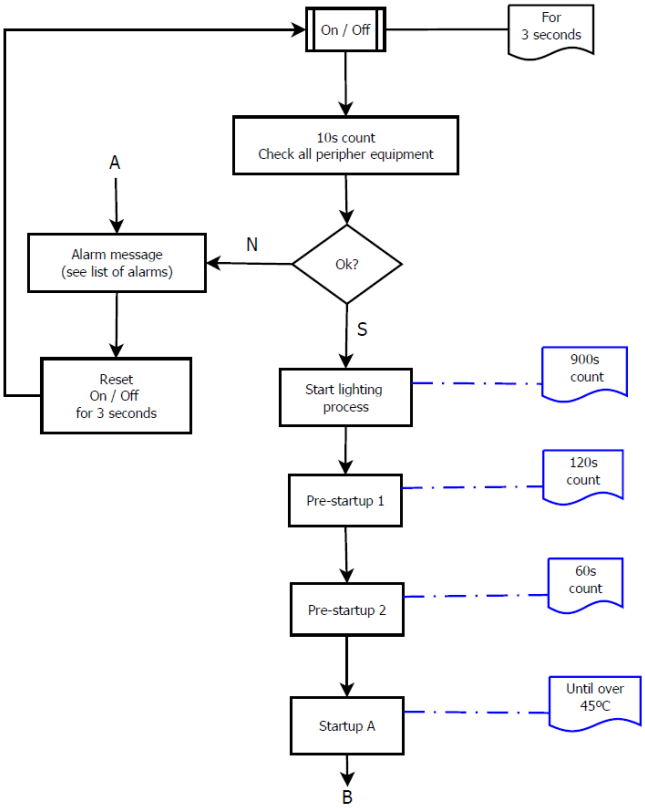
24. Commissiioning

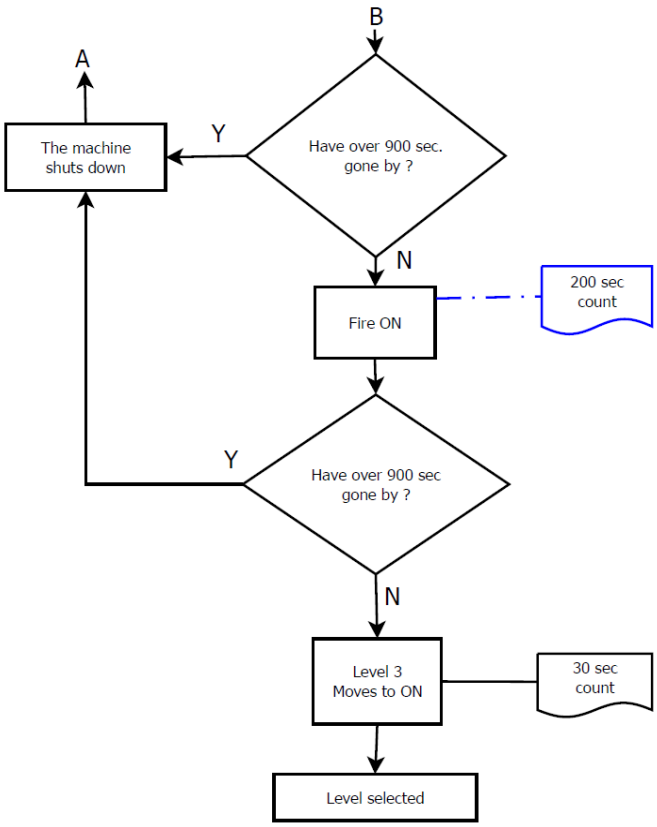
Waterford Stanley requires that the unit is subject to commissioning for the warranty to be to activated. The commissioning can only be performed by technical service engineers authorised by Waterford Stanley. This is mandatory before the unit reaches 100 service hours. Waterford Stanley is responsible for the initial commissioning call out, all subsequent expenses related to commissioning recommendations or additional commissioning call outs are the responsibility of the end user.

25. Flow Charts Ignition/ Shutdown

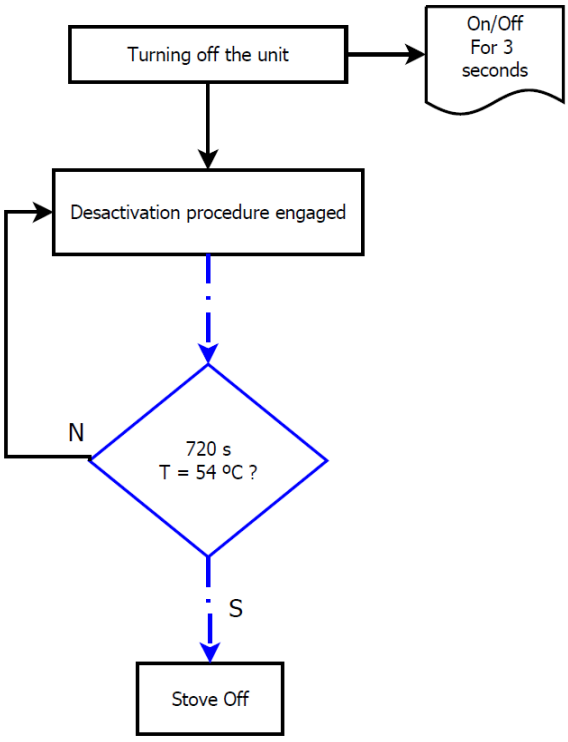
25.1. Flow chart K1200

- **Flow chart 1 – Lighting**





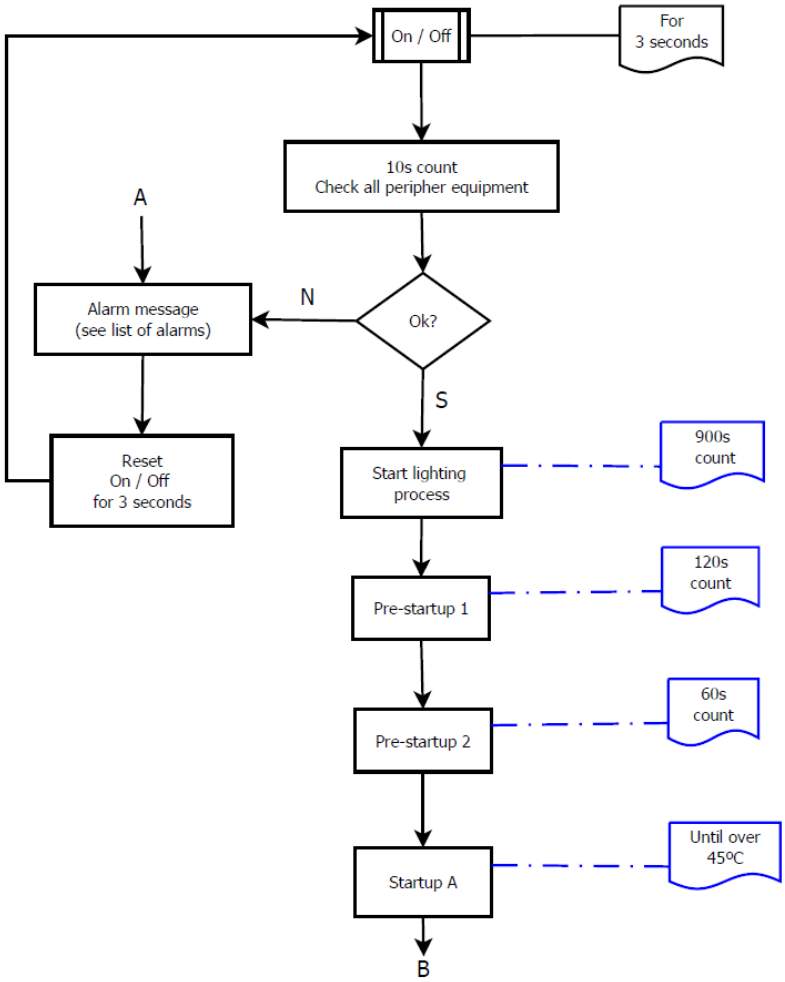
- **Flow chart 2 – Shutdown**

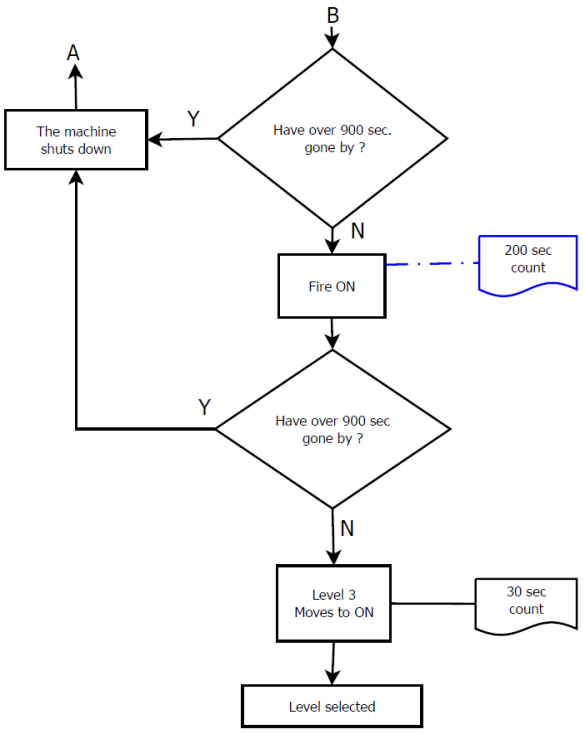


Note: The circulation pump switches off below 40 °C water temperature.

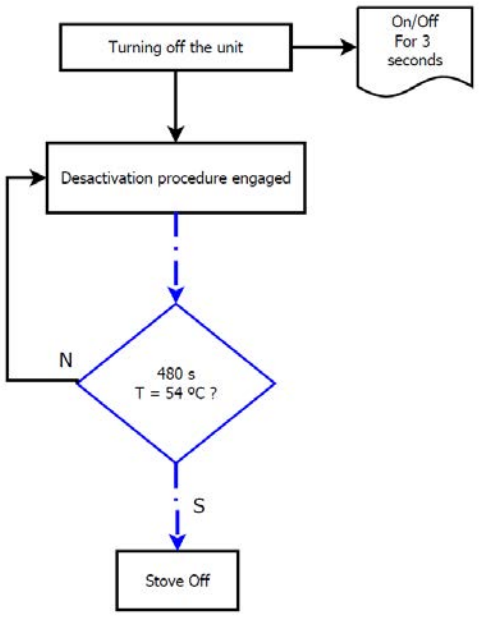
25.2. Flow chart K1700 and K2300

- **Flow chart 1 – Lighting**





- **Flow chart 2 – Shutdown**



Note: The circulation pump switches off below 40 °C water temperature.

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